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ABSTRACT

The seminar was attended by 310 educational leaders. The two keynote speakers, Robert E. Taylor and Felix C. Robb, addressed the topic of changes in society and in education, the seminar's first objective, and reflected on changes that need to emerge on the educational scene. The Changing Content: Impact on Programs, Strategies of Teaching, and People was the title of the seminar's second objective. Of the six papers presented in the "Proceedings", three relate to projects in the Staff Development Unit of the Comprehensive Career Education program, one to the Ohio Career Education In-Service Plan, one to the Dallas In-Service Education Plan, and one to a University of Wisconsin In-Service Education project. The seminar's third objective, The Changing Strategies: Impact on Programs, Teaching, and People in Teacher Education, culminated in the presentation of eight papers. Four of the eight dealt with performance based teacher education curriculum emphasizing development, use in teaching, and research involving modules. The remaining four projects dealt with simulations. (Included in the appendixes are the seminar program and lists of the seminar staff, program-seminar participants, and seminar participants.) (AG)

LEADERSHIP TRAINING SERIES NO. 40

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THE CHANGING EDUCATIONAL SCENE

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PROCEEDINGS of the

SEVENTH ANNUAL NATIONAL VOCATIONAL TECHNICAL TEACHER EDUCATION SEMINAR

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY

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Leadership Training
Series No. 92

Seventh Annual National Vocational and Technical Teacher Education Seminar Proceedings

The Changing Educational Scene

October 22-25, 1973
Dallas, Texas

Edited By

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FOREWORD

Three hundred-ten educational leaders from forty-five states, the District of Columbia, Canada, and Puerto Rico participated in the Seventh Annual National Vocational and Technical Teacher Education Seminar that was held in Dallas, Texas, October 22-25, 1973. The theme for the seminar was The Changing Educational Scene.

The objectives for the seminar which guided the development and execution of the program included: (1) The Changing Educational Scene and Its Impact on Teacher Education, (2) The Changing Content and Impact on Programs, Strategies of Teaching, and People, (3) The Changing Strategies and Impact on Programs, Teaching, and People in Teacher Education. The keynote addresses were followed by a series of presentations on the topics and group discussions. This publication contains the formal presentation papers.

We wish to thank the seminar participants for their active and meaningful participation. Special thanks is extended to the program planning committee for their assistance in guiding the development of the program. The following Center staff are recognized for their contributions to the seminar: Anna M. Gorman, project director; Mary S. Anderton and Joseph F. Clark, research associates; Darrell L. Ward, associate director; John Walton and Jerry Walker, evaluators; and Nancy J. Lares, secretary.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

PREFACE

The Changing Educational Scene was the general theme for the Seventh Annual National Vocational and Technical Teacher Education Seminar. The two keynote speakers addressed the topic of changes in society and in education and then reflected on changes that need to emerge on the educational scene.

The changing content was developed at the seminar in the area of in-service education programs and practices. Six presentation papers from these sessions are included in the *Proceedings*; three papers related to projects in the Staff Development Unit of the Comprehensive Career Education program; one paper on the Ohio Career Education In-service Plan, one paper on the Dallas In-service Education Plan, and one paper on a University of Wisconsin In-service Education project.

The changing strategies centered on the performance-based teacher education curriculum with three presentations on development, use in teaching, and research involving the modules. These four presentation papers are included in the *Proceedings*. Four other projects involving the changing strategies were also discussed at the seminar and these four papers are in the *Proceedings*.

Awards were presented to six individuals for their devotion to keeping abreast by attending five of the seven national seminars sponsored by The Center. Three individuals were recognized for having attended all of the seven seminars. Copies of the presentations were distributed at the seminar.

Anna M. Gorman, project director

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TABLE OF CONTENTS

	Page
FOREWORD	iii
PREFACE	v
ACKNOWLEDGEMENTS	xi
AWARD RECIPIENTS	xiii
SEMINAR AWARD	xv
CHAPTER	
I. THE CHANGING EDUCATIONAL SCENE	1
Presentations:	
Robert E. Taylor The Changing Educational Scene and Its Implications for Teacher Education	3
Felix C. Robb The Changing Expertise: Impact on Teacher Education	13
II. THE CHANGING CONTENT: IMPACT ON PROGRAMS, STRATEGIES OF TEACHING, AND PEOPLE	27
Presentations:	
Kaare Jacobsen and Harry N. Drier, Jr. Attitudes Toward Career Education Identification and Change	29
Anna M. Gorman Training Program for In-service Coordinators of Career Education Programs	43

Page

Robert E. Norton 59
Using Community Resources in Career Education: An Imperative

Linda A. Keilholtz 73
Ohio's Plan: Career Education In-service Development Through Process Reflection

Dwane Kingery 83
Staff Development and Career Education–Dallas Style

Robert A. Ristau 85
A Report on a Course Taught Via Modern Technology for the University of Wisconsin - Madison

III. THE CHANGING STRATEGIES: IMPACT ON PROGRAMS, TEACHING, AND PEOPLE IN TEACHER EDUCATION 105

Presentations:

Curtis R. Finch and James B. Hamilton 107
Performance-based Teacher Education Curricula: Implications for Programs

F. Milton Miller 123
The Writing Process

Mary Jane Grieve 127
Utilizing Performance-based Modules in Teacher Education Programs

Richard A. Adamsky 135
Module Utilization in Vocational Teacher Education at Temple University

Jimmy G. Koeninger 143
Glen Oaks: An Environmental Simulation for Teacher Education

Page

Lucille W. Patton 159
An Interaction Simulation: Coordinated Local-State Vocational Education Planning

Elaine F. Uthe 169
Multi-Media Programs and Simulated Cases for Preservice and In-service Development of Teacher Coordinators for Cooperative Programs Serving Disadvantaged and Vocational Students

Olive Church 185
North Dakota Occupational Models Career Cluster Concept in Office Simulation

APPENDICES

Appendix A - Seminar Program 199

Appendix B - Seminar Staff, Program-Seminar Participants 211

Appendix C - Seminar Participants 215

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Dedication to keeping abreast of current developments in vocational-technical teacher education as exhibited by consistent attendance at the annual national vocational-technical teacher education seminars sponsored by The Center for Vocational and Technical Education, The Ohio State University.

_____
President, The Ohio State University

_____
Director, The Center for Vocational and Technical Education

_____
Date

CHAPTER I

THE CHANGING EDUCATIONAL SCENE

THE CHANGING EDUCATIONAL SCENE AND ITS IMPLICATIONS FOR TEACHER EDUCATION

By: Robert E. Taylor

It has been five years since I keynoted the Second Annual Teacher Education Seminar in 1968. Since that time, we have witnessed significant changes in the broad context of education with resultant changes mirrored in the educational establishment. While we have made substantial educational gains and have contributed to problem reduction and/or amelioration in the human experience, we still are confronted with new and changing variables, and the phenomenon of ever receding horizons. This is especially apparent when we attempt to measure our accomplishments against society's goals. We have experienced difficulty in repealing what C.F. "Boss" Kettering, who used to be Director of Research for General Motors, called the second law of aerodynamics, which liberally stated, says, "it's impossible to push on something moving faster than you are."

Societal Forces

Permit me to quickly highlight but a few contextual forces impinging on the educational scene:

1. Our costly involvement in Vietnam which resulted in intense polarization of our social structure.

2. Search for relevance and individual and national purpose.

3. The communication gap:

   a. between generations
   b. between agencies of government and the people
   c. between schools and its constituencies.

4. An increasingly felt need for a more satisfactory coupling of citizens' desires with expert knowledge to achieve the larger aims of society.

5. A younger generation, thraching out in frustration hoping for a more humane and just world, has resulted in befuddlement due to their inability to clearly define their own expectations or present viable alternatives. We have also observed a reversed polarity where, according to Margaret Mead, the old are frequently adopting the values of youth.

Robert E. Taylor, Director, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

6. Attaining but modest gains in meeting the real needs of minorities and women.

7. The scientific and technical professions are vulnerable to the criticism that they have single-mindedly placed technology ahead of man's humanity.

8. The organization of knowledge among the disciplines and the institutional structures for knowledge development and application are not congruent with major social problems. It is difficult to organize the full force of social intelligence toward major problems of the community and nation.

The Watergate episodes have seriously eroded confidence in government, widened the credibility gap, resulting in a pervasive lack of confidence and cynicism in our political processes.

Other societal forces relating to our current assessment of the "state of education" include:

1. Increased militancy and negotiation by students and now by staff.

2. Declining enrollments in higher education.

3. Demographic change in college enrollments since fewer traditional students are seeking higher education.

4. Inability of the labor market to absorb the output of colleges and universities.

5. Increased pressure and competition for limited dollars within education and with other societal needs.

6. Greatly intensified institutional and personal accountability including the possibility of malpractice suits in education.

7. Sweeping court decisions and pending court cases in more than half of our states regarding equal distribution of the benefits and the economic burdens among all school districts.

8. The emerging consumer posture for educational clientele.

9. A healthy pragmatism has emerged concerning citizens' expectations of education, particularly with reference to career preparation and economic roles.

These forces have placed unparalleled pressures and demands on our societal structures, and education is in the eye of the storm.

The gap between education needs and expectations and our accomplishments have resulted in disillusionment and disenchantment with the educational enterprise. A remedy for this situation and other alternatives are under active consideration. It appears we have over-promised and under-delivered; that we have not been realistic and explicit in terms of what we could really accomplish with out limited resources.

Needed Developments

Much has been done—much remains to be done—much can be done. While it is impossible to explicate the full impact of these social forces on education or delineate the range of alternative strategies for providing educational leadership, there nevertheless appears to be several areas that are imperative for addressment. They are presented for your consideration and action.

Clarity of Purpose

It is only logical and to be expected that in a pluralistic society there will be difficulty in agreeing upon a common set of goals for the educational enterprise. Career education, unlike innovations such as team teaching, differentiated staffing, individualized learning, etc., which dealt primarily with process, focuses principally on the basic purposes of education. This realistic concern for educational outcomes has accentuated a major problem in education—that of determining whether schools prepare for life or the next level of education; whether knowledge is to be descriptive or applicative; whether the optimization of individual career development provides a logical rationale for organizing and sequencing experiences. The full implications of career education have intensified the need to agree upon what it is education is really about. Not only is clarity of purpose critical from the standpoint of focusing limited resources, assessing progress, and effectively delivering on our promises, it is also essential to restore confidence in the educational enterprise with the general public to give them the education they want.

There appear to be several major inputs which not only support the general concept of career education but also validate some of the historical emphasis that vocational educators have attempted to engender. For example, the recent national Gallup poll on public attitudes toward education[1] indicates that Americans are a practical people who believe firmly that education is the royal road to success in life. When asked for specific responses regarding reasons why their children should secure an education, they mentioned the following reasons in the order of priority listed:

1. To get a better job,

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[1]George H. Gallup, "Fifth Annual Gallup Poll of Public Attitudes Toward Education," *Phi Delta Kappan*, Spetember 1973, p. 29.

2. To get along better with people of all levels of society,

3. To make more money–to achieve financial success,

4. To attain self-satisfaction,

5. To stimulate their minds.

Additional support for career education and its essential dimension of vocational preparation have recently been enunciated by Coleman[2] who has cited several skills that should be learned in the education system before age eighteen:

1. Intellectual skills, the kinds of things that schooling at its best teaches.

2. Skills of some occupation that may be filled by a secondary school graduate, so that every eighteen-year old would be accredited in some occupation, whether he continued in school or not.

3. Decision-making skills: that is, those skills of making decisions on complex situations where consequences follow from the decisions.

4. General physical and mechanical skills: skills that allow the young person to deal with physical and mechanical problems he will confront outside work, in the home, or elsewhere.

5. Bureaucratic and organizational skills: how to cope with a bureaucratic organization; as an employee, a customer, a client, a manager, or an entrepreneur.

6. Skills in the care of dependent persons: skill in caring for children, old persons, and sick persons.

7. Emergency skills: how to act in an emergency or unfamiliar situation in sufficient time to deal with the emergency.

8. Verbal communication skills in argumentation and debate.

While these educational skills probably seem logical to us, they too often are lacking in educational programs across the country and we are not adequately delivering on them.

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[2]James Coleman, "How Do the Young Become Adults," *Review of Educational Research*, Vol. 42, No. 4, Fall 1971, pp. 435-436.

Accountability

From multiple forces in the context, not the least of which is economic constraints, we are experiencing unparalleled pressures for institutional and individual accountability.

A Harris survey[3] of public attitudes toward our major institutions conducted in October 1972, reported a definite drop among those declaring "a great deal of confidence in education." In 1966, 61 percent of the respondents in the study indicated positive opinions about education. In 1972, this figure had dropped to 31 percent. Also in April of 1972, a national sample of adults confirmed the rising level of dissatisfaction with 56 percent stating that they would not support an increasing tax base at the polls if schools continued to demand additional operating money. The failure of significant number of school bond levies in 1972-73 confirm their sincerity.

We have been trapped by our zeal to make education all things to all people. (Providing basic skills, socialization and aculturation of new citizens; occupational preparation; continuing education needs; health education and services; sex education; drug education, individual fulfillment; ad infinitum.) Schools have been holding the defaulted promisory notes of the home, the private sector, and other institutions and agencies.

If we are to avoid unjust criticism, it is obvious that we must be more explicit in terms of what we can deliver within the resources and organizational context in which we function. We must achieve clarity of purpose and in a consumer sense, "truth in labeling" our products. If we are to achieve truly professional status, then professional conduct must illustrate our ability to render quality service.

We, therefore, must establish more precise and effective means of prescribing and determining individual performance. Performance measures need to substitute for "time served." I am pleased to note that time is scheduled in the program for a more thorough analysis of performance-based teacher education and its attendant ramifications.

Alternatives in Allocating our Resources

In consort with increased clarity of purpose and more effective assessment of performance, we must examine alternative ways of deploying our scarce resources. For example, we have traditionally approached educational improvement with the "mind set" of reducing student-teacher ratios. According to past assistant secretary of HEW, Sidney P. Marland,[4] "education's share of the gross

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[3]S.P. Marland, "Education and Public Confidence," *American Education*, May 1973, p. 6.

[4]S.P. Marland, "A Profession of Change," presented at the Graduate Commencement, Rhode Island College, Providence, Rhode Island, Friday, June 8, 1973, pp. 4-5.

national product has jumped from 4 percent to over 8 percent in the past eighteen years. The number of public school teachers has grown during this time at a faster rate than the number of pupils. At the opening of the fall 1972 semester, there were approximately twenty-two pupils for every teacher in U.S. public schools, compared with 25.7 pupils for each teacher ten years earlier. Considering that teachers account for about 68 percent of the operating expenditures of elementary and secondary schools, it is easily recognizable that this method of quality improvement has its economic limits, especially since we must continue to improve rewards for excellence in teaching. Current expenditures for elementary and secondary education, primarily teachers' salaries, have risen about 51 percent during the past four years. The consumers price index has risen 21 percent during the same period. At an average salary of, say, $10,000, it costs over $1.3 billion to reduce our pupil-teacher ratio by one.

"Correspondingly, by increasing this ratio by one, we have $1.3 billion reserve to improve teacher salaries in rational ways, and provide programs and alternative interventions not otherwise available.

"It is obvious then that we must consider alternative ways of allocating scarce resources to bring about educational change and improvement. Education in this country is in deep financial trouble because it has all the drawbacks of a cottage industry—tiny firms, minimal technical progress, low cost-ratio productivity, little specialization of labor, no consumer choice, and no overall measure of net output." We need to recognize that education is a labor-intensive industry. We have not effectively substituted capital for labor. We have not adequately exploited applications of educational technology. We need to think further about differentiation of roles, and more direct involvement and participation of people from the real world. Further, we need to be concerned with staff differentiation not only for improved learning, but also cost effectiveness.

Marland[5] has expressed that "in charting our reform design for the years ahead, we must turn from measures designed for simple accommodation of the World War II baby boom—and devise a radical reform of the educational methods themselves, including the way in which we deploy our teaching talent. Our purpose is not only to improve the excellence of our product, but to find the secrets of greater productivity, too."

While it may seem inconsistent or incongruous to argue for increased investments in personnel development with a general framework of more effective utilization of economic resources, I, nevertheless, want to make the point that we have traditionally underinvested in professional development in vocational teacher education.

For example, during the fiscal year 1972, over $31 million was spent on personnel development in vocational education.[6] While this was an increase from three years earlier when only $20.5 million

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[5]Ibid., p. 6.

[6]U.S. Department of H.E.W., 1973, p. 7.

was spent on vocational professional development,[7] in both instances the expenditure as a percentage of total federal, state, and local funds was a mere 1.3 percent. It is estimated that industry traditionally invests 5 percent of its capital in personnel development each year.[8]

Given the inflation rate, it could be argued that the increase in dollars actually bought a lower volume of services. It is also reasonable to assume that pre- and in-service requirements are escalating. We should not be misled by growth which does not keep pace with our receding horizons—we still haven't repealed the second law of aerodynamics.

While other sectors of education are concerned with an over-supply, this is not the case in vocational and career education. (As an aside, I would like to observe that there is no over-supply of actual professional educators, just certified personnel.) We obviously need to be more aggressive in our recruitment, preparation, and placement, and more effective in our ability to attract resources for improved programs of personnel development.

While we have been enriched by the hybrid effect of talent infused from other disciplines when we have experienced perennial personnel shortages, it would be equally beneficial, in my judgment, if more individuals with a sound philosophy of vocational education, and competency, were available to compete for leadership positions in other areas of education. Historically, we have been severely handicapped by limited numbers of personnel for program development and expansion.

Teacher educators and state administrators need to address the problem of resource allocation and more aggressive programs of preparation. I submit that increased investments in personnel development will retain more than some of our other current educational and societal investments.

School-Community Involvement

Educators are the first to admit that the school is but one agency in man's environment that contributes to his educational and cultural refinement. The home, religious establishments, the place of work, and a multitude of other agencies impact on the individual and influence his life style and lifetime accomplishments. The problem historically is that the efforts of these various institutions effecting man's total educational process are disjointed and incremental. No successful orchestration has been accomplished to coordinate the various educational efforts, thus fulfilling a higher percentage of man's basic needs. The failures become especially alarming when we consider the existence of societal inequalities in relation to educational opportunities, educational

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[7]U.S. Department of H.E.W., 1970, p. 52.

[8]Carl Schaeffer, *A Rationale for Comprehensive Personnel Development in a State, Comprehensive Personnel Development for Vocational-Technical Education*, Series No. 34, Columbus, Ohio: The Center for Vocational and Technical Education, 1972, p. 9.

credentials, occupational status, income and general job satisfaction. What is education's role in resolving this dilemma? According to Christopher Jencks'[9] study involving a reassessment of the effect of family and schooling in America, the findings indicate that although school reform is important for improving the lives of children, schools have not contributed significantly to adult equality. He states three primary reasons which account for this conclusion:

1. Children seem to be far more influenced by what happens at home than by what happens in school. They may also be more influenced by what happens on the streets and by what they see on television.

2. School reformers have very little control over those aspects of school life that affect children. Reallocating resources, reassigning pupils and rewriting the curriculum seldom change the way teachers and students actually treat each other.

3. Even when the school exerts an unusual influence on children, the resulting changes are not likely to extend into adulthood. A comparison of elementary test scores and adult income is an excellent example.

One essential step toward making the school a more responsible agency to the needs of society is through extensive school-community involvement.

Schools need to be opened up to allow for learning to take place in the real world into which children must eventually enter and fulfill productive roles. The community-school concept, which allows for the use of regular public school facilities after normal hours and on weekends to offer educational opportunities to adults and other people not normally in school, needs to be expanded. Teacher education programs need to begin to prepare prospective teachers in the area of community education and in the utilization of the total community.

While schools must be viewed as the planners and managers of the educational growth of individuals, they must draw on and utilize the full range of societal resources that are available by making extensive use of the educative capacities of the community.

Citizens of the community need to be used as resource people in the classroom, serving as: (1) citizen and worker role models, (2) content experts on specific aspects of the humanities, sciences, etc., and (3) guidance in development of avocational skills. The communities role in the paraprofessional movement has only begun to be realized. Citizen advisory committees, a relatively new movement in education within the last decade, holds extensive promise for increasing the meaningfulness of educational programs.

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[9]Christopher Jencks and others, *Inequality*, New York: Basic Books, Inc., 1972, pp. 253-255.

Emphasis needs to be placed on the importance of using the community as a laboratory for learning and the school as a center for use by all of the local residents for social and educational programs. If schools are to serve as revolutionary instruments for social change, it is essential that educators extend the school into the home as well as other segments of the community.

Career Education: The Unfinished Agenda

If you consider these issues facing education to be as serious as I do, namely, lack of clarity regarding purpose, accountability, allocation of resources, and community involvement, career education may figure in the needed plan of action.

The concept indeed does provide us with clarity of purpose in education by the nature of its concern with the outcomes of the educational process rather than simply educational inputs. I believe it provides a new polarity and paradigm for education, one focusing on individual career development. It considers curriculum to be systemic—an integrated and cumulative series of experiences designed to help each student achieve (1) increased power to make relevant decisions about his life, and (2) increased skill in the performance of all his life roles. Specifically, career education is designed to capacitate individuals for their several life roles: economic, community, home, avocational, religious, and aesthetic. It recognizes the centrality of careers in shaping our lives by determining or limiting where we work, our associates, and other dimensions that are significant in defining our life style. Career education is not viewed as another "add on"—it is not incremental or cross-sectional, it represents an infusion throughout the curriculum—it calls for a restructuring and reorienting of the total educational program. Career education, then, should be viewed as lifelong, permeating the entire school program and even extending beyond it. It is designed for all students, and delivers on a historical societal goal for education which to date has not been met.

The implications for professional personnel development are extensive. We immediately need to:

1. Reexamine the traditional relationship between general and vocational education and their specific roles.

2. Determine how career education affects relationships between vocational education and training personnel in business, industry, etc.

3. Determine what new roles may need to evolve (e.g., community education directors, paraprofessional specialists, etc.).

4. Examine the possibilities of utilizing alternate career models (community, residential, employer).

Recognizing the visibility and momentum of career education, as educators we must confront the many issues and questions posed by this educational priority, think it through, consider it, shape

it, and evaluate it so that this educational reform allows us to begin to satisfy the needs of a continually changing society.

Summary

Historically, "change" has not come easily in education. This is especially true in formal teacher education programs that must operate under the classical view of the functions of higher education. If the education profession is to be in a position to fulfill its role in the future, it must develop for itself a structure better adapted to modern educational systems. Some specific "action steps" for personnel career developers that can be listed are:

1. We need to seek integrity of educational terms and educational purposes. Giving clarity to basic educational purposes should allow us to more closely orient professional development activities to the real needs.

2. We need to become activists in the area of public policy, thus exercising greater influence on educational aims and resource allocations. We must convince and educate policy-makers to the need for additional fiscal resources in professional development programs.

3. Finally, we need to "kill" the sacred cows that historically have limited our perspectives. We need to break the "mind set" that formal education in colleges and universities is the only means whereby personnel can be prepared to assume educational roles. Education needs personnel with a background of real world experiences. We need to seriously consider the implications of the external degree program. Additionally, we must continually strive to provide leadership for new educational and supportive roles. Differentiation and specialization are desperately needed in education.

4. Continual emphasis must be centered on performance and excellence of educational systems. The World War II "baby boom" has passed through the educational system, thus reducing our need for expending extensive resources in increasing educational quantity. Excellence is expected "now" in all sectors of the educational system.

While I am not pessimistic about the future of society, the educational system, or vocational and technical education, I do feel that we need to maintain a continual awareness of societal forces, educational constraints, and educational capabilities.

The degree to which educational systems perform at the level of society's expectations is dependent upon the actions of all educational leaders. It's essential that we confront the issues in education now and use our combined expertise and talents for the improvement of educational programs.

THE CHANGING EXPERTISE: IMPACT ON TEACHER EDUCATION

By: Felix C. Robb

The Center for Vocational and Technical Education is to be congratulated for organizing a seminar with the general theme of "The Changing Educational Scene and Its Implications for Teacher Education." In this particular session, we will undertake to focus attention on "The Changing Expertise."

Teacher education, like vocational and technical education, has been subjected in every generation to rigorous criticism and challenge—both from within the academy and from outside. Teacher educators have occasionally been charged with being faddist or too avant-garde, but mostly the charges have had to do with alleged failures to be innovative and responsive to new conditions and to the winds of change that continually sweep through our society, at times with near gale force. As a former long-time teacher educator, I agree with those who say that major reformulations in the preparation of teachers were long overdue. In other words, if we have erred, our tendency has been to change too little and to do it too late; it is not a question of changing too much or too fast.

In recent time, however, the climate for new ideas has improved markedly. Actually, there is today a premium in many schools and colleges on sound innovations, and the most common magic word in the pedagogical lexicon is "creativity." But make no mistake. The path is often difficult for the true innovator. He or she must buck the powerful inertia of massive organizations and systems, bureaucratic structures, vested interests, and the innate tendency of many individuals to distrust whatever is new, different, untried, or unproven.

At the risk of repetition, I intend to relate societal changes to what I perceive to be education's role and responsibility to address itself to these changes. Out of that context, hopefully, we can thread our way to the target of our specific topic: the expertise needed by teacher educators in vocational/technical programs for institutions.

The field of occupational education has an edge on many other elements of the instructional curriculum because of its historically close relation to the world of work. That world has changed dramatically in recent decades. Woefully inadequate budgets have held back the development of vocational education in the past, but this has changed. A strong and growing public demand for more and better opportunities for skill development and vocational planning has upset traditional priorities and allocations of educational resources. The career education movement, regardless of what some academicians may think of it, has made profound impact on American education from bottom to top.

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Before going further I think we should pause for a "station announcement" on just what we mean by "expertise." My dictionary calls it "expert opinion," "commentary," or "know-how." An "expert" is one who has acquired special skill in or knowledge of a particular subject. In its ultimate form, expertise becomes recognized authority.

We have all heard the endless bad jokes about the expert. He's an "ordinary guy away from home," or "a person thirty miles from home with a briefcase."

Among the major societal changes of which we must be mindful are the following. As I cite them, ask yourself: What ought education's responses to be:

- The United States is no longer the single dominant power in the world. We share leadership with countries that have military strength, nuclear capability, and currencies stronger than our own embattled dollar.

- An unabated military arms race continues with a gigantic portion of our national income devoted to past, present, and future wars—this in spite of the growing interdependence of nations.

- Nagging unemployment and underemployment persists, even in our advanced industrial economy.

- Costs rise in an inflationary spiral of dangerous proportion.

- A seeming decline in quality of manufactured goods and in performance of human services as witness our automobiles in general and the U.S. Postal Service in particular.

- There has accrued a dramatic increment in the political power of youth, following the granting of voting rights to eighteen-year olds.

- We have witnessed the gradual opening of the society to allow fuller participation in benefits and responsibilities by racial and ethnic minorities and by women.

- The declining influence of traditional religion and the simultaneous rise of new religious and philosophical movements and organizations creates a major new climate in America.

- The counter-culture movement of alienated youth, with its new life styles and values has changed attitudes toward institutionalized life and established authority.

- We note a new emphasis on the uniqueness, worth, and dignity of each individual.

- There is growing tension between the corporate interests of institutions, organizations, the community, the state, and the nation on the one hand and the interests of individuals on the other.

- Poverty exists in the midst of plenty with a widening world gap between the extremes of poverty and wealth.

- After reaping the dividends of industrialization for generations, we now face the deadly serious fact of environmental pollution and the destruction of our ecological balances.

- A world energy crisis of monumental proportions has been in the making for 100 years, but only in 1973 did this awesome reality come to general public awareness through rapid depletion of oil reserves. New energy sources can be exploited in time but meanwhile it may be essential for the American people to learn patience and asceticism.

- A giant new force is the urban concentration of power, wealth, and people, accompanied by suburban sprawl and urban crisis.

- Crime in the streets, vandalism, terrorism, and destruction pose a strong challenge to educators.

- Drug addiction continues to grow daily and has caught the nation without adequate preventative and defensive policies and programs.

- There is a definite shift away from emphasis upon size and growth as worthy goals of the society to emphasis on the quality of life and a zero population growth point of view, aimed at slowing the rate at which we are using up our natural resources.

- A knowledge explosion that "boggles the mind" involves a doubling of general information every fifteen years or so and a doubling of scientific knowledge every decade. It is a staggering fact that nearly 3,000 pages of print are being produced per minute in this country alone.

- Sophisticated science and technologies in communications, cybernetics, and servo-mechanisms provide the basis for automation and management of services for a swelling population.

- Vast expansion of health services and facilities has occurred, with resultant longer life spans and greater need for food, housing, jobs, and services.

- More leisure time results from shorter work weeks, and earlier retirement.

- A strong egalitarian consumer-citizen movement has developed in the United States.

These are but some of the sweeps and changes that produce "future shock" when not planned for and coped with. The capability of technology to multiply exponentially presents an inevitable crisis of man against machine, of humanity versus technology.

While the undesirable results of misuse of science and technology are manifest in ways such as environmental pollution and the displacement and obsolescing of people, we have the privilege and

the duty to become the masters of the vast potentialities of our scientific and technological expertise and, through education, to advance the quality of living. Technology per se is neither good nor evil. The problem of technology is man himself. As the popular philosopher, Pogo, once said: "We have met the enemy—and he is us!"

Education's responses are taking many forms. We are fast becoming a total learning society, with education formally and continually available from cradle to grave. We are now better prepared psychologically and professionally to fit schools to students rather than the other way around.

We are seeing more experimentation and more solid thrusts in the public schools toward imaginative concepts such as learning contracts between the school and the pupil, community-based instruction, superbly developed presentations of knowledge through videotape cassettes, individually programmed instruction, the reeducation of adults for second and third careers, and creative use of leisure. Another major source of expertise is yet to be fully utilized: voluntary action of competent citizens willing to serve. Exciting vistas of individual development and career building and opportunities for a more vital role of education in community development lie ahead.

Education must help influentially to shape the future. It is our best hope. It can help to do these things: rebuild cities, improve citizen participation in their own governance, cleanse the environment, provide the essential "glue" that binds us together as a people, a nation, a society, and a world. We especially must shoulder our part of the responsibility for how well or badly people behave, for whether or not, as Robert Frost urged in his latter years, people can learn how to "crowd and be kind."

Education can no longer afford to turn its back on its failures—the young people who do not succeed in school, who drop out and who are never heard from again. A coordinated follow-through and referral system is desperately needed so that it becomes readily possible for a student to drop out of school when he needs to but impossible for him or her to be lost and neglected in the cul-de-sacs of a huge and complex society. This speaks volumes about the kinds of guidance and counseling services we now have and the kinds we need for easier access and widening options.

Not yet devised is the ultimate means of pooling and disseminating easily in manageable form the best that is known about learning, teaching, the learner, and the teacher. Where are the central data banks with dial or other access for help in specific problems and instructional situations? How does education become coordinated and articulated for students in a mobile society? Only privileged schools and school systems are in the vanguard in this respect. Too few schools and departments of education help preservice teachers to know how to use available national resources of knowledge and expertise in their chosen fields and how to adapt to the learner's peculiar needs.

One of the most significant new developments in education is the emergence of alternative systems and procedures for learning. Traditional concepts of exactly where and when and by whom learning can take place are fast being supplemented by nontraditional approaches such as open and ungraded classrooms, intergenerational learning situations, team teaching, simulation techniques, community-based learning experiences, use of paraprofessionals, individually programmed instruction, modified group dynamics, etc.

Perhaps the most difficult challenge in all education, including teacher education, is the question of how to motivate the learner. Without a measure of inner drive, of insight into what learning can do to make one's life better and more fulfilling–without this, all the fancy gadgetry, fine buildings, and splendid equipment in the world will not produce the essential desire to learn.

It is not within our preview to discuss the basic matters of financing, managing, and controlling our pluralistic educational system. But each of you is aware of developments in this area, the erosion of the local tax base, the recent court challenges to use of the property tax for support of education. For our purposes today we must make the optimistic–and I trust valid–assumption that the American people value education enough to pay for it and will order their priorities accordingly.

For our part, we should see to it that education is worthy of strong financial support. Suffice it to say that if we could but harness the full power of education to teach effectively the ideas of honesty, integrity, cooperation, and respect for others–the billions of dollars saved by lessened criminality could finance an exciting era of moral and intellectual advancement.

The resources for education are, and always have been, inequitably distributed among institutions, school systems, and individuals they serve. This problem is being attacked vigorously today, but without dramatic results. I have always been troubled by statistics revealing "national averages," because they say to us that half the schools and their students are <u>below</u> average. Doing more for the lower half without jeopardizing the top fifty percent will be the triumph of the century if we can achieve it.

The future of America depends heavily on how well we can motivate, facilitate, and maximize learning in a very broad and near total spectrum of our population. Let us now turn, then, to the specifics of expertise needed to retain and encourage that inborn intellectual curiosity and desire to learn with which each child is equipped but which too often becomes stifled or eroded by a series of unsuccessful encounters with school. We need to think and talk about how to free the classroom of useless or deadening routines and how to build an excitement about learning and an identification with learning's value and its rewards as well as its responsibilities and constraints.

In teacher education we work with those self-selected or lightly guided individuals who decide at some point that they wish to become teachers. Most of these neophytes have an image of the teacher and the teacher's role based on personal experience. Like much of the citizenry at large, college students feel they are experts about education because they once attended school! So a necessary first task is often to unlearn some well entrenched ideas and beliefs about learning and how it takes place.

I would propose that true expertise, which we seek to develop in our graduate and undergraduate centers and in our school systems and vocational/technical education institutions, consists of the following:

1. <u>Substantial mastery of content appropriate to the fields and levels of emphasis</u>. This knowledge will need to be assessed in terms not only of its quantity but its appropriateness, current relevance,

and its "transmission quotient" for a particular age, grade, and mix of children, youth, or adults to be taught.

Teachers today cannot be "dumdums." Students are more exposed than ever to vast reservoirs of knowledge by television, travel, etc. They can spot the fake, the phoney, or the ill-prepared. They also expect a wide range of awareness and sophistication as well as outstanding knowledge of one's teaching field.

2. The effective teacher is conscious of his or her place in the universal system of education in this country. Understanding the context of our times and the ways society acculturates its members will supplement one's ability to teach in a relevant manner and can contribute also to the teacher's self-esteem and sense of important mission.

3. The master teacher has insight into the nature of homo sapiens. He or she understands learners as persons and their psychology. Knowledge of mind, body, and emotions (including basic human urges and aspirations) constitutes the stuff out of which humaneness, concern, and wisdom in teaching are made. It is also very important to develop antennae sensitive to the moods and movements of students, to share their need for involvement and participation in what affects them, to be aware of the power of peer group pressure in the life of a student, to facilitate the enormous opportunity of students to learn from each other.

4. Somewhere along the path of teacher education, a preservice teacher (or one being updated and retooled) needs to develop at least a simple philosophy of education that establishes the nature and parameters of purpose. Once viewed as a keystone in graduate education, philosophy has taken a back seat to other components of our tight, pressure-cooker curriculum. In lieu of a formal course, one well-digested book on philosophies of education can cause a teacher never to forget the importance of ultimate meaning.

5. The expert educator is, first and foremost, himself a learner. He recognizes the endless processes by which some knowledge becomes obsolete, new knowledge is added, and choices made as to what in the vast welter of information is important to know. The expert never quits learning.

6. A valuable part of expertise embraces what you have spent a day in discussing: Strategies for learning, utilization of the latest learning systems and ideas. I view knowledge and employment of the latest teaching/learning hardware as important but not quintessential. No amount of hardware can make a great teacher. Understanding and implementing one's role effectively can produce exciting results.

(a) I would like to think that the day will come when no teacher will any longer view education as a process of "pouring it in" or "filling a vessel." The day of the authoritative lecture (except by a rare few super lecturers who deserve vast student contact through large classes, films, videotapes, and TV) is about done.

(b) The modern vision of what teaching is all about places the individual learner up front and center, a special person with unique characteristics, capabilities, and potentialities. To facilitate his development is the Number One objective. To achieve this, the student is encouraged to move as far, as fast, and as securely as he can from the posture of a dependent learner to becoming an independent one. Thus, it is inevitable that instruction at all levels will become more individualized with special attention paid to self-motivation, personal responsibility, self-discipline, and independent inquiry.

(c) The teacher's role in the future must be that of a catalyst at the least and a synergist at peak performance. The difference in these terms borrowed from science is that a catalyst can stimulate and induce change without changing itself. In contrast, the synergistic agent not only stimulates change in other elements present but becomes itself changed, transformed, and (hopefully) improved.

(d) The successful teacher is a super communicator, able to articulate, to explain, to interpret, to explicate. Relating well to the mind, the mood, and the world of the learner requires expert communications skill. This implies ability to think clearly, to speak efficiently, to write good English prose. It involves more: The employment of all the appropriate sensory avenues. What is learned by sound and sight is apt to remain learned longer than what is acquired by either of these sensory avenues. The importance of doing and touching was stressed by John Dewey and is as fresh an idea today as then.

(e) The superior teacher views herself or himself as a resource and a finder of resources. It is not necessary for the teacher to know the answers to all conceivable questions. But it is a weak teacher indeed who has no knowledge of where to suggest that a student begin his search for answers.

(f) The expert teacher does not shirk responsibility as a guide and mentor. Knowing students well is a step toward helpfulness in their total development. The trick here is to avoid the potentially dangerous role of amateur psychiatrist and to know when and how to refer students with serious emotional problems to the appropriate source of specialized help and to be able to call upon competent advisers with respect to facets of career guidance outside the ken of the teacher.

(g) While it may be highly unpopular to identify this next role of the expert teacher, I believe that it may be essential in order to insure the success of teaching roles already mentioned. The outstanding teacher should have enough knowledge and charisma to be an "authority" in the highest and best sense of that word. This involves the kind of ability, knowledge, and resourcefulness that command attention and respect. It includes the kind of strength of personality and purpose that enables an individual or a group of learners in the elementary and secondary schools to be set free to learn by reducing to the absolute minimum the discipline problem besetting many teachers today. In occupational education we come closer to the ideal than in most other areas

of study. It is the lot of teachers to identify some metes and bounds. Hopefully these can be approached sympathetically and democratically with those most affected. In the end there must be an orderliness within which informality can take place. There must be enough self-control to permit that buzz of activity and group interaction that marks the alive classroom.

In these latter days when violence has entered the schoolhouse of America and when police have to be employed to maintain order, it is more difficult than twenty or thirty years ago to achieve a happy balance. Yet all too many schools of education leave neophytes to their own devices without adequate preparation for the worst that can happen and the most that is apt to happen. A good teacher is a happy teacher, a teacher free of anxiety about student behavior. I view this area of teacher preparation as a generally weak link in the chain. Failure to forearm teachers for the behavior problems they may encounter has done as much as anything I know to invalidate the expertness of otherwise well prepared young teachers.

(h) The expertise required in education today calls for the teacher to be an evaluator. Vocational and technical education have taken the lead in striving toward more effective evaluation of the learner's performance. Just now a number of states have entered into a consortium arrangement with the Southern Association of Colleges and Schools for the development of performance-based criteria for the measurement of effectiveness of vocational and technical programs, field by field, and of vocational/technical learning. This is being developed under the aegis of the association's Commision on Occupational Education Institutions. This is the only such commission in the six regional accrediting agencies of the USA. The prospects are exciting for significant results that can be used widely for the more realistic and accurate evaluation of instructional effectiveness. At a time when the public is calling for greater accountability and asking how good is the education they pay for, this is one means of identifying quality and achievement. Such a development is understandably more manageable and feasible in auto mechanics than in art appreciation or literature, but in the end all of education will benefit and be influenced by the establishment of valid measures of the performance of students and teachers.

(i) One of my choice recollections from my days as a doctoral student at Harvard concerns an amazing little man from Maine whose field was science education. He was the most remarkable person I have ever met in his uncanny genius for showing students how to make useful instruments and learning materials out of what others viewed as junk to be thrown away. I did not know it then, but he was way ahead of his time in drawing upon the environment surrounding the school and involving children in a community-based experience. Certainly a valuable part of an internship today will include experience in identification and utilization of community resources.

More and more learning is destined to take place outside the four walls of a classroom and away from the school in community-based experiences. This heightens the sense

of reality needed by some learners to keep alive their interest in school and in learning.

(j) When learners contract with the teacher for a planned program of community exploration, a vast, largely untapped resource is made available. The teacher then becomes a planner and a manager of learning opportunity, gaining a host of allies in the process, opening new channels for creativity, and also encountering greater risk that things may go wrong and fail at points.

Finally, because vocational/technical education is technology oriented I wish to share with you some personal thoughts about the utilization of technology in education and technology's contribution to instructional expertise.

Educational technology, for many years a sort of sleeping giant, can provide helpful solutions to our problems of how to do more with less, how to individualize instruction, and how to free the teacher of routine tasks.

Technology may involve an elaborate, expensive device such as a sophisticated computer with a slave machine printing out daily lessons from a central memory bank. Or technology may be a simple deck of cards or a piece of chemically treated paper that tells a child when he prints a letter of the alphabet properly and lets him correct his own errors. It includes books, maps, charts, pictures, films, slides, tapes, and records. It also includes the more complex gadgets such as telephones, tachistoscopes, science and language laboratories, radios, libraries, television sets, and videotapes.

I see in individually programmed instruction the means to allow children to proceed as quasi-independent learners and to reach their highest fulfillment at their own pace. I see in the medium of television the chief economical means of teaching large numbers of students and of placing a master teacher before every child and adult in a massive system of education. The ultimate in individualization involves the much more expensive videotape cassette of which I will speak later.

The possibilities of technology are almost limitless. But there are formidable economic and psychological barriers to its fullest development. The status quo attitude is strong in the educational establishment and a distressing number of teachers and administrators are actually hostile or apathetic toward innovations, especially in the line of new hardware. We have now reached the point, however, where technology is welcomed instead of feared by a growing number of teachers at every level. They realize that schools cannot lumber along in an "educational oxcart" in this jet-propelled age. We must recognize the sincere, valid concerns of those who know that if technology is wrongly used it has dangerous pitfalls. But these potential perils must not deter us in exploiting to the fullest technology's power to improve learning and to help revitalize our institutions.

To allay the anxieties of teachers it has often in the past been said that technology does not displace teachers. Hopefully, it will displace some teachers—the dull, the lazy, the unproductive, the unprofessional, and inflexible ones—who are incapable of becoming creative managers of the learning environment and facilitators of human development.

The fullest utilization of advanced educational technology requires certain pre-conditions or assumptions. We have the hardware, but that is not enough. The effective use of technology requires effective people. To produce these we need drastic changes in teacher preparation programs to assure that no neophyte enters the profession without substantial insight into our newer strategies of learning.

We must engage in wide-scale reorientation of in-service training programs for experienced teachers to introduce them to the exciting possibilities of educational technology. Some high school and college faculties may be avant-garde in their readiness to support reform in areas outside education, but they are citadels of the status quo when it comes to innovation in instructional methods and techniques. Too often they are wedded to the "containerized" education of the traditional classroom and the lecture.

In today's world the usefulness of the traditional lecture is being reduced. It violates virtually everything significant we have learned about education in the past twenty-five years. It cannot compete for the attention and interest of today's or tomorrow's students who are "psyched up" by their wide-ranging out-of-school experiences. This is especially true of the mass media with many young children spending more time watching commercial television than they devote to school and church combined.

Now that we have a base in research for extending the technologies of instruction, we can depart from construction of traditional classrooms to provide flexible settings for a variety of large group, small group, and individual instruction.

We must modify the "display and distribution" approach to technology to insure ample feedback, dialogue, evaluation, and self-appraisal. Nothing is more fundamental than this axiom: The student learns for himself by doing, not be being "done to." There are really three phases to learning: perception, thinking, action. Teaching involves all three, culminating in useful, fulfilling activity. Remember that study without action is futile, but action without study is fatal!

Instructional resources centers are now well established in many universities, larger school systems, and regions serving numbers of schools and school systems. The economical use of technology requires the pooling of resources that no single school or small school system can afford. It also requires maximum access and availability if it is to be effective and must have built into it the capability to create good content, properly adapted to the instructional goals. As each of you knows, the greatest weakness of the newer forms of instructional technology is the inadequacy of software.

Television is often described as the most important communications device since Gutenberg's invention of movable type made possible the mass printing of books. Until fairly recently, television appeared not to be living anywhere near up to its potentiality for education. Network television has grown generally cheap, stereotyped, and chauvinistic in its worst aspects. But in its finest hours, it is utterly magnificent.

Of course computers are no better than the information programmed into them. Thus, the gap between the quality and sophistication of the hardware and the quality of the "software" available is a real barrier separating schools and their students from the theoretically beautiful and ideal situation for self-directed learning. Until material can be organized into small units adjusted for all age levels and for all levels of competence, no system can be continuous.

The computer serves as tutor, simulator, instructor, and encyclopedia. It is adaptable to every level from the primary grades to post-doctoral research study. Its greatest usage awaits not only an expansion of numbers of teachers who can master the system but a superior cadre of program creators who will see that fresh, relevant, suitably organized materials are added to the reservoir of stored information.

The computer is one of man's two most advanced tools for improved instruction. It stores information, simulates memory and reality, and performs logical decision-making. In these basic functions computer-assisted instruction and individually programmed instruction have arrived to give the teacher the tools with which his or her most important functions, catalyst and synergist in the learning process, can be readily performed.

Let us all recognize the limitations and the hazards of over-mechanization. The computer deals with measurable data, not with human values, unique problems, or attitudes. As someone has said, remember that a pupil may have a favorite teacher; he will never have a favorite computer. Errors made through a computer, unlike errors in old-style one-to-one relationships of teacher and taught, can affect disastrously many people.

Before closing, I wish to observe, not irrelevantly I trust, that the curriculums of our schools give scant attention to what we are dealing with today: man's tools. Without tools to shape, cut, staple, dig, lift, etc. (approximately thirty basic functions in all), there could be no civilization as we know it. Yet children grow into adulthood and adults grow old not understanding or appreciating the tremendous contribution of tools to the human enterprise.

There is a small, scattered body of knowledge about tools that should be introduced at intervals into the learning experience of all pupils from the first grade through college. This information might range from the invention of the wheel to the third generation computer. It would expand the understanding by each student of his world.

An opportunity to identify and actually use a variety of tools from the simplest to the more complex could motivate many youngsters currently not challenged by traditional approaches to academic subjects. And for those who are more manipulative-minded, "tool technology" could be the hinge that swings them away from the boredom of perceived irrelevance into the excitement of the real and useful. For them tool technology can open doors of opportunity, expand their options, and increase their chances for personal fulfillment.

In conclusion, what can we do to help bring about a "millennium" in education? Just as Sputnik and the 1960's gave us successful probes into outer space and culminated in a moonshot landing and

After about twenty-five years of desperate struggle, educational (now called public) television has at last achieved a firmer economic base. It now does much to fill a cultural void and to make non-commercial programming possible in prime time. Its value for schools and to family and community life is enormous.

How great it will be when television sets are released from the manacles of the usual three- or four-network programming on fixed schedules. By means of videotape cassettes that a child or adult can use at school, home, or elsewhere the television set becomes a remarkable, full-range information and entertainment center.

Already available, but at prohibitive cost to average consumers, are color videoplayers that connect to standard TV and hi-fi stereo components to produce instant programs on tape wound into cassettes or cartridges.

The video revolution has expanded our horizons. These video systems usher in the age of true individualism of learning and give us the ultimate flexibility of time, place, and material.

Let us take this engineering miracle one step further by linking the television tube to a computerized bank containing millions of sequences of information. Some will be in the form of motion pictures, some in still photos, others in audio recordings of music and the sounds of famous voices in history, others will be pages of books from the simplest nursery rhymes to the most scholarly treatise. Add into our system a coaxial cable over which the sounds and images may be transmitted to a classroom or home and education gains the ultimate dimension it has long sought. From a central source the teacher or student may gain from a dial almost instant access to the world's vast reservoir of knowledge.

It is the digital computer, with its lightning-like high-speed capability to store and retrieve information, that has also shaken up the educational world and given it new horizons. By means of computers we will interconnect libraries, schools, and learning resources centers in what are referred to as "on-line interactive computer communities with a shared data bank." The advantage of this is that the individual learner can communicate with a central source of information, carry on a "conversation" with the computer and draw from it whatever it is programmed to give back.

Here at last is the means to accommodate individual differences of pupils, to eliminate the endless routine chores of keeping records of pupil progress, grading tests, producing lesson assignments in the form of individually adapted print-outs based on each student's progress up to that point, etc. The teacher will be able to have access to a comprehensive, up-to-date academic record for each student. Initially this will apply to students who remain in one geographic area but eventually it could be the means of providing helpful information regardless of where the student has lived or where he goes.

A single high-speed computer with an extensive memory capacity can serve a huge number of students from their individual terminals and give each of them a printed record of his own performance at the end of a lesson or a series of drills.

national "shot-in-the-arm" for science education, so can we produce in the 1970's an "earthshot" of such magnitude as to revolutionize education and improve the general quality of the human condition. To get this launched, we need another jolt. But this time the stimulus should be self-generated, not made in Hanoi, or Moscow, or Peking.

CHAPTER II

THE CHANGING CONTENT: IMPACT ON PROGRAMS, STRATEGIES OF TEACHING, AND PEOPLE

ATTITUDES TOWARD CAREER EDUCATION IDENTIFICATION AND CHANGE

By: Kaare Jacobsen
and
Harry N. Drier

Within a society characterized by rapid social and technological change, the teaching process and for that matter, learning, is extremely complex. Information presented today may be outdated tomorrow. A teaching or learning environment appropriate to one period of cultural transition may be inappropriate in another. The teacher's role is subject to considerable shifts requiring skills varying according to the time, the place, and the individual with whom the teacher is working.

We are living in a transitional age where today's youth are involved with more advanced kinds of thinking, analysis and valuing than any other known group in history. How will arithmetic be taught when each elementary student will have his or her own pocket electronic calculator? How will history be taught when students can dial a number and view historical films on television screens, or retrieve microfiche pages from any of a million books? Jung[1] of the Northwest Regional Educational Laboratory states that "educators will be living the answers to such questions in the coming years."

This is an age of change that requires new and rapid adjustment. Moffitt[2] writes that

> its impact on education is an ongoing challenge. It is the basic reason determining the need for continuous education for all people and particularly of all teachers. Without continuing study, teacher knowledge and teacher performance soon become obsolete.

Education is continually called upon to change. It is understandable that when knowledge is expanded, learning and teaching methods are discovered and new resources become available, considerable retraining of educators must occur thus demanding change in teacher education. Teacher in-service education is a major method of providing teachers the opportunity to increase efficiency, develop new skills, and provide for continual learning.

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[1]Charles Jung, "Instructional Systems for Professional Development," *Theory Into Practice.* Columbus: The Ohio State University, College of Education, 1972, pp. 276-277.

[2]John C. Moffitt, *In-service Education for Teachers.* Washington, D.C.: The Center for Applied Research in Education, Inc., 1963, pp. 6-7.

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In-service education is a planned process for influencing teacher behavior with the intent of changing or modifying conditions and instructional practices to be used in our schools. Harris and Bessent[3] give four propositions providing a conceptual framework for education to plan for and initiate change. They are:

1) In-service education is a process for change

2) Changes through in-service education take place in an organizational context

3) In-service education is a process for planned change

4) In-service education is one of several organizational changes and takes place through personnel development

In-service education represents interventions directed toward deliberate, planned changes. Harris and Bessent[4] refer to planned change, using an agent of change–someone who examines the existing state in light of some future desired condition. The change agent then intervenes somehow to change events to reach a desired goal. The ultimate goal is to improve and make more effective the educational opportunities for children. The focus is on educational renewal procedures designed to facilitate individual and group growth of teachers within the public schools.

The characteristics of a successful program of staff development have been enumerated by Finnegan.[5] Successful program characteristics are:

1) Designed to meet genuine needs of the educational staff, pupils, and citizens of the community, as determined by group study and judgment;

2) Planned and administered cooperatively with objectives clearly established;

3) Designed to provide help of a practical, concrete nature;

4) Designed to be continuous and planned on a long-term basis;

5) Considered an integral part of the educational process;

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[3]Ben M. Harris and Wailand Bessent, *In-service Education, A Guide to Better Practice.* Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969, p. 16.

[4]*Ibid.*, p. 19.

[5]Harry Finnegan, "Into Thy Hands . . . Staff Development," *Theory Into Practice.* Columbus: The Ohio State University, College of Education, 1972, p. 216.

6) Designed to be action centered;

7) Based on sound principles of learning, and;

8) Designed to provide a permissive atmosphere conducive to creativity.

In-service education today cannot be viewed as a frill or an add-on activity to take place at the beginning or any other single point in time of any school year. It must be considered an integral feature, woven into the ongoing instructional program and organizational fabric of the system. Fundamental to educational change, strategy is total school staff involvement. If education is to meet the demand of the time, it must plan for change by involving the entire school staff. Gorman[6] writes in the recommended guidelines for in-service development:

> When all of the educational personnel involved with Career Education are a part of the in-service education program, then, it will be more likely that the program will have a positive enduring effect in the total educational environment.

Any school district considering in-service training needs for all their staff members is likely to face some difficult issues. Rapid educational change, like that being called for in career education, calls for continual in-service education of existing staff. School budgets are inadequate in many districts and the cost of in-service education is increasing. As costs increase, there will be pressure to limit staff renewal to those staff members who can profit the most. This is critical because to exclude any teachers from participating in in-service may hinder the adoption process. Many educational changes are long lasting and need total staff involvement and support. This is especially true of career education presently serving as a change model that demands long-range planning time to develop, test, and evaluate.

There is another inherent problem in the development and implementation of career education. The emphasis on an engineering effort in curriculum development could pose a problem of teacher noninvolvement. As more tested programs and products are developed and installed, teachers may assume a passive resistive role in implementation.

Teacher resistance to change and general indifference to in-service education has been known for many years. Coon,[7] in a study of attitudes of teachers and administrators toward high school

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[6]Anna M. Gorman, et al., *Operation Resources for Teacher Educators and Other Educational Personnel Concerned with Teaching the Disadvantaged Learner.* Columbus: The Center for Vocational and Technical Education, The Ohio State University, March 1972, pp. 27-29.

[7]H. Coon, *A Study of the Attitudes of Teachers and Administrators Toward High School Curriculum Organizations*, unpublished Ph.D. dissertation, 1951, The Ohio State University.

reorganization, reached the conclusion that "teachers are highly resistant to significant curriculum change, more so than either administrators, students, or parents."

As a result of a study involving 247 selected schools of the North Central Association, Weber[8] identifies the unprofessional attitudes of teachers as creating the greatest barrier to change. These attitudes stem from "a generalized feeling of opposition to change; a general disposition of indifferent inertia and complacency; the holding of tenure rights and the feeling that administrators assume the responsibility for educational changes and curriculum improvements." This was confirmed by Berry and Murfin[9] who state that

> the teaching personnel toward whom in-service education is directed often create the greatest barrier to success of these programs. Indifference, negativism, resistance, lack of interest, apathy, complacency, and inertia may be identified as factors which sometimes limit individuals or whole faculties in efforts at growth through in-service techniques.

Sarason,[10] in observing the problem of change in a school, recognizes that "there will be groups that will feel obligated to obstruct, divert, or defeat the proposed change." In establishing priorities for theory of change, he states that

> recognizing and dealing with this source of opposition is not a matter of choice, preference, or personal aesthetics. The chance of achieving intended outcomes becomes near zero when the sources of opposition are not faced, if only because it is tantamount to denial or avoidance of the reality of existing social forces and relationships in the particular setting.

A problem of greater magnitude is to design in-service education programs to deal effectively with the resistive personality. There has been little research dealing with the magnitude of change and personality types. Less research has been conducted on the personality that is resistive to influence. Goldstein and associates[11] write that "surprisingly little interest has been generated in studying the characteristics of those who are resistive to influence." What adds to the problem is that resistance to influence is held in a high regard by many people in society. Pepinsky[12]

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[8]W. E. Weber, "Obstacles to be Overcome in a Program of Teacher Education In-service," *Educational Administration and Supervision*, Vol. 28, Nov. 1962, pp. 609-614.

[9]J. R. Berry and M. Murfin, "Meeting Barriers to In-service Education," *Educational Leadership*, Vol. 17, No. 6, March 1960, p. 354.

[10]Seymour B. Sarason, *The Culture of the School and the Problem of Change*. Boston: Allyn and Bacon, Inc., 1971, p. 59.

[11]A. P. Goldstein, K. Heller, and L. B. Sechrest, *Psychotherapy and the Psychology of Behavior Change*. New York: John Wiley and Sons, Inc., 1966, p. 153.

[12]P. N. Pepinsky, "Social Exceptions that Prove the Rule," in I. A. Berg and B. M. Bass (eds.), *Conformity and Deviation*. New York: Harper, 1966, pp. 380-411.

writes that resistance to influence is considered a positively valued trait in our culture at times indicating productive nonconformity. In contrast to the little research done to determine the characteristics of the resistive personality a great deal of research has been done on the conforming personality. In reviewing literature on the characteristics of the conforming personality, Blake and Mouton[13] offer the following conclusions:

> Results show that those who are more susceptible to conformity pressures are more likely to be submissive, low in self-confidence, show less nervous tension, score higher on authority scales, be less intelligent, less original, and to score on the simplicity end of the dimension of the complexity-simplicity scale.

An underlying purpose of this discussion is to point out the importance of gaining more knowledge and understanding of persons who are resistive to influence. The inability of educational decision-makers to discriminate between the conforming personalities and the early adopters emphasizes the importance of developing teacher in-service programs that are specifically designed for teachers who are resistive to influence.

Approaches Considered

Given that teachers' indifference and resistance must be considered when designing in-service education programs, a major question can be asked. How can a staff development effort be operationalized to maximize the assimilation of career education in a particular school district?

There are many approaches that could be developed to address the above mentioned question. For example, it could be assumed that variations among district staff members in terms of their acceptance of and commitment to the philosophical and operational tenets are negligible and will not affect staff development outcomes. Neglecting these variations could be a mistake in terms of long-range planning. The danger is that program innovators and educational decision-makers who are eager for positive initial support and exclude the resistive personality that may represent the long-term positive effect needed for total program adoption.

A second approach could be to make a comprehensive attempt at creating a positive affective change in all staff members in a school district. The efficiency of this strategy also should be questioned. In most instances, efforts to induce large group affective changes of the type desired tend to be time-consuming, relatively ineffectual, and have low cost-effectiveness. Also, such efforts may have an effect opposite the one desired, especially when directed toward those staff members who already exhibit positive affective behaviors.

A final approach simply would be to involve only those staff members who are known to exhibit positive feelings toward the innovation, and then have them influence other members

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[13]R. R. Blake and J. S. Mouton, "Conformity, Resistance, and Conversion," in I. A. Berg and B. M. Bass (eds.), *Conformity and Deviation.* New York: Harper, 1961, pp. 19-20.

through normal interaction patterns. The third strategy also could be questioned on the grounds of its cost-effectiveness although such an approach probably could be developed.

In analyzing all of the above approaches, The Center for Vocational and Technical Education selected one for study which will be described in this paper. Our strategy was selected because it was viewed (a) as being more cost-effective than the three strategies described above, (b) as being more directive in its focus, and (c) as being more adaptable in actual school settings.

The specific approach proposed can be described as follows:

1. First, every staff member in a target district will be administered three short scales that will be used to differentiate among them in terms of their orientation toward innovation or change, their attitudes towards career education and thirdly, their commitment to same.

2. Next, those staff members identified as not being change-oriented will be asked to participate in a special seminar that focuses upon changing their attitudes towards change and more specifically, towards career education, per se, the Comprehensive Career Education Attitude Change Module.

Identifying The Resistive Staff

In investigating the problem of identifying resistive staff, a concentrated effort was made to develop a valid and reliable instrument to gain a better understanding of the characteristics of the prospective adopter. To this end an attitude scale was designed to measure various levels of staff attitudes towards career education. The instrument utilized three different subscales for the purpose of gaining greater potential in interpretive power in measuring attitudes than a single summative score. The final instrument: The Comprehensive Career Education (CCE) Staff Development Questionnaire was designed to generate a multidimensional attitude profile to enable local educational personnel a broader picture of the attitudes of a Local Education Agency in order to make more realistic decisions regarding their career education efforts.

Description Of The Subscales

.Krathwohl[14] states that the lowest level of valuing is typically called a belief, i.e., accepting a value. At the highest level, the terms "commitment" or "conviction" are more appropriate than belief. Subscale I, The "Acceptance" scale was designed to measure educational staff acceptance

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[14]Krathwohl, B. S. Bloom, and B. B. Mason, "Taxonomy of Educational Objective," *Handbook II: Affective Domain*, New York: David McKay Company, Inc., 1956, pp. 139-141.

of principles and concepts of career education. Krathwohl[15] characterizes an attitude in the acceptance level as an abstract concept of worth that is internalized deeply enough to be a consistent controlling force on behavior, and that the person is perceived by others as holding the belief or value.

Subscale II has been labelled the "Commitment Scale" which is more action oriented and deals more directly with staff involvement in career education. Krathwohl[16] describes belief at this level as involving a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended.

The third subscale was designed to differentiate between innovation and early adopters as contrasted with "laggers" who are slow to change. It was developed utilizing Russell's[17] measurement of the orientation of vocational teachers. The purpose of including this subscale was to measure change orientation of educators without reference to career education or vocational education. Test items having reference to the work ethic philosophy were deleted from this subscale.

In our initial testing of the scales, an attendance area of a large southern school district consisting of 577 teachers were administered the questionnaire described above. Evidence indicated that there are essentially three broad classifications of educators. The first group of educators were identified as being enthusiastic toward change and actively sought new teaching methods and techniques. A second group in the study were classified as indifferent to change and were not supportive of an adopting program. The third group, scoring lowest on a multidimensional attitude profile, represented staff who were resistive to change and may actively oppose any interruption within the school setting.

One of the interesting findings during this study was that within each subgroup there was a wide variation of attitudes toward career education. For example, one-third of the group that scored high in change orientation scored in the lower quartile on the commitment subscale. Research indicates that there are many staff members who view vocational education unfavorably or have biases toward education for employment. The profile generated supports the idea that staff may be highly favored toward change but be in opposition toward career education.

Another significant finding was the lack of any clear pattern of response in the acceptance subscale. This scale seems to be a function of the characteristics of the situation in which a person found himself. The score is dependent upon the demand characteristics of the situation and

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[15]Krathwohl, *ibid.*, p. 149.

[16]Krathwohl, *ibid.*, p. 150.

[17]Earl B. Russell, "The Measurement of the Change Orientation of Vocational Teachers." The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio. Research and Development Series No. 77, December 1972.

does not reflect a deep conviction regarding career education. This subscale is important as an oblique technique in order to get a more accurate reading on the commitment scale. It is recommended that staff members identified as not being change-oriented be asked to participate in a special seminar that focuses upon changing their attitudes toward career education, i.e., The CCE Attitude Change Module. The specific in-service package that the low change-oriented staff members would be asked to complete before proceeding with the remainder of the staff development sequences has the following purposes:

1. To involve participants in learning activities that will increase the likelihood of continued participation in the in-service program.

2. To persuade participants to critically assess career education materials in order to integrate this information with their areas of expertise.

3. To engage participants in discrepant behavior inconsistent with their private feelings to optimize an attitude change favoring career education.

The selected strategy was developed from the theoretical base of Festinger's cognitive dissonance theory. The strategy utilizes empirical research findings that have demonstrated effective behavioral change. Then, by careful design, this type of laboratory can be extrapolated into a practical teacher education seminar to affect a predicted change in teacher attitude. The field tested strategy reported in this study demonstrates that educators and researchers can work together in bridging the gap between behavioral science and education in the "real life" setting.

Cognitive Dissonance Theory

The theory of cognitive dissonance incorporates cognitive elements and their relationships. These are items of confirmation or cognition about one's self, one's behavior, or one's environment. A person likes to think that his attitudes, beliefs, and related behavior form a consistent pattern. Incongruity between a person's private beliefs and behavior results in a sense of imbalance–what Festinger refers to as dissonance. There are several theories on the need to correct dissonance called cognitive consistency theories. They deal with perceived inconsistencies and assert that inconsistencies generate tension. They postulate that a person with dissonance will behave so that he maximizes the internal consistency of his cognitive system.

Festinger[18] was the first to publish explicit formulation of dissonance theory in this 1957 volume, *A Theory of Cognitive Dissonance*. As Festinger[19] and others have shown, the weighing of

[18]Leon Festinger, *A Theory of Cognitive Dissonance*. Stanford, Calif.: Stanford University Press, 1957, p. 37.

[19]Leon Festinger, et al., *Conflict Decision and Dissonance*. Stanford, Calif.: Stanford University Press, 1964, pp. 158-592.

alternatives is more realistic prior to the decision; after the decision there is great pressure to bring belief and action into balance. Dissonance reduction is a key principle in his theory. Dissonance is an unpleasant state of affairs that creates tensions that tend to motivate a person to reduce this inconsistency. Cohen[20] lists three ways in which a person's induced discrepancies between cognitions and behavior can be reduced.

1. He can, in general, change any or all of the cognitions so they will lead more strongly to the expression made.

2. He can increase the felt importance of the intrinsic rewards or punishments that led to the discrepant behavior.

3. He can reduce or completely eliminate his dissonance by changing his private opinion so that it is more consistent with the expression made.

The central hypothesis of the theory holds that the presence of dissonance gives rise to pressure to reduce that dissonance. The strength of this pressure is a direct function of the magnitude of the existing dissonance. It becomes essential that dissonance arousal become a major manipulative technique in order to predict dissonance reduction. It is possible to arouse cognitive dissonance and increase commitment by employing role playing. The procedures require that the negatively attracted person act as if he was positively attracted to the situation.

Operational Plan For Module Design

Many problems had to be overcome in designing an attitude change module based on the empirical base of cognitive dissonance theory. One of the most difficult problems is addressed by Fishbein[21] regarding the conditions of subject choice. He states:

> The experimental fostering of the individual's belief that he has relative freedom of choice about whether or not he complies with the discrepant request is a major problem. If the person feels that he has been coerced, little dissonance and consequent attitude change will result. On the other hand, if subjects are actually allowed to agree or disagree freely with the request to comply, few may comply. After all, why should anyone agree to support a position with which he disagrees or engage in behavior which is unpleasant to him?

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[20]Arthur R. Cohen, "Attitudinal Consequences of Induced Discrepancies Between Cognitions and Behavior" in Martin Fishbein, *Readings in Attitude Theory and Measurement.* New York: John Wiley and Sons, Inc., 1967, p. 333.

[21]E. G. Festinger and Carlsmith, op. cit., and Cohen "Forced Compliance through Positive Inducement, Perceived Choice and Attitude Change," in Readings in *Attitude Theory and Measurement.* New York: John Wiley and Sons, Inc., 1967, p. 339.

It must be emphasized that in order to apply cognitive dissonance theory in a practical program, one cannot just construct a traditional teacher education workshop. One important point in designing a program is that incentive, inducement, coercion, and authoritative techniques may not be used as manipulating strategies. They are likely to reduce the likelihood of an attitude change. Choice is an essential condition which precludes the complete autonomy of the subject to decide whether or not to participate and remain in the program.

Individual choice has been carefully considered in the planning strategy for involving resistive teachers in discrepant behavior. Choice points are structured at critical times to minimize coercion and experimental manipulation. Teachers have the opportunity to exercise free choice in whether or not to identify themselves on the pretest, which is an attitudinal questionnaire identified as a career education instrument. It is a basis for selecting the experimental sample.

In our study, each participant was notified by personal letter mailed from The Center for Vocational and Technical Education. The teacher again had to exercise choice regarding participation in a career education workshop. Another critical choice point designed into the treatment permitted the participant to choose his/her posture regarding the career education program. Each teacher chose to defend or oppose the career education program. At no time during the experiment were the participants coerced to continue the program.

A second critical feature of our attitude in-service education program was to employ dissonance-arousing manipulations to encourage involvement in learning activities inconsistent with private feelings. To be able to engage participants to support a position which is disagreeable required a great deal of experimental ingenuity. There had to be some justification for personal involvement in an unpleasant task but not to the point where the participant could disengage himself from the discrepant behavior.

The importance of role playing to induce attitudinal change has been verified by research. Role playing as an engaging technique in discrepant behavior is emphasized by Kelly[22] who states that role playing offers a person the opportunity of "trying on" new behaviors under relatively safe conditions. It is as if one has a protective mask to "explore his world without wholly and irrevocably committing oneself." As a subject continues to act discrepantly from his beliefs, he sees little prospect of publicly canceling out the discrepant behavior.

High commitment conditions existed when the participants were asked to record a statement on videotape. As the person viewed himself along with other group members, it became more difficult to neutralize his discrepant behavior. This is especially true because free choice was used in structuring the experimental situation.

One of the significant features in our study was to isolate the elements and maximize the dissonance between the two elements or cluster of elements. It was essential that we make a conscious

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[22]G. A. Kelly, *The Psychology of Personal Constructs.* New York: Norton, 1955, p. 373.

effort to "block off" all methods of dissonance reduction except one, i.e., changing one's private position to coincide more nearly with the position expressed. To rule out the possibility that the experimental setting is creating dissonance, an initial encounter group experience was planned. Each participant was made to feel a part of the group through interaction, creating a safe environment in which to experiment.

Teacher workshops often appeal for acceptance of specific ideas or program information without presenting rival ideas. Dissonance can be aroused through defensive reactions on the part of the participants since they are not given an opportunity to compare and view counter arguments. Hovland, et al.,[23] demonstrated that a two-sided program is more effective in changing the opinion of those initially opposed to the program. An experiment conducted by Tumsdaine and Janis[24] clearly indicates that the subjects who received the two-sided communications are able to maintain the adopted attitude.

Rival ideas and comparisons are a major feature of our teacher attitude program. The importance of two-sided communications is emphasized by the numerous instructional "hand-out" materials. Reading kits were prepared representing extreme pro and con positions on career education. Each participant chose a position and was given a packet with reading material to support him. In order to reduce suspicion regarding these positions, the program objectives specify learning of classroom teaching techniques (role playing and videotape recordings). The intent was to create the illusion that the content (career education material) is a secondary feature of the program. Although a subject chooses to take a position inconsistent with his private attitudes, dissonance arousal does not occur until an overt expression is made.

Summary

The Problem And Methodology

In-service education is a planned process for influencing teacher behavior with the intent of changing conditions and instructional practices in the classroom. As educational change occurs, attempts must be made to involve all teachers in an organized program of in-service education. In planning in-service activities, it is important to recognize that many teachers often defend the traditional content and approaches in education and resist change. Unless effective means are developed to encourage the resistive teacher to attend in-service education programs for the purpose of change, there will be little chance of achieving intended outcomes. The problem is that staff development specialists and program developers have not developed effective in-service strategies to

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[23]C. I. Hovland; A. A. Tumsdaine; and F. D. Sheffield, *Experiments on Mass Communications.* Princeton: Princeton University Press, 1949.

[24]A. A. Tumsdaine and I. L. Janis, "Resistance to 'Counter Propaganda' Produced by One-Sided and Two-Sided 'Propaganda Presentations'," *Public Opinion Quarterly*, 1953, Vol. 17, pp. 311-318.

influence the behavior change of resistive teachers. Therefore, the purpose of our attitude change study was to develop an in-service attitude change module and to field test it in order to compare short-term effects of this method of intervention on the attitude of dissident teachers.

We compared the attitude change experienced by resistive teachers as a result of being selected to field test a career education curriculum unit developed by The Center and undergo the regular planned in-service education. We also studied the effects of using a planned intervention module in the form of behavior modification in changing the attitudes of resistive teachers compared with a group of teachers not involved in any career education in-service education program. Experimental subjects were sixty teachers randomly selected from the population of teachers who scored in the lowest quartile in the acceptance subscale of the Comprehensive Career Education Staff Development Questionnaire.

The sample utilized in our study was assigned to three treatment conditions. Twenty teachers were assigned to the attitude change workshop, twenty teachers were assigned to teach a career education curriculum unit and twenty were assigned to a control group. The participants in the attitude change workshop were permitted to self-select either a pro or con position during the first workshop setting. Upon making a selection, each participant was required to maintain the chosen posture for the duration of the three day workshop.

Conclusions

Taking into consideration the limitations that have been examined earlier, this section presents conclusions that were drawn from our experimental findings.

1. Resistive teachers can be influenced to change their attitudes in a specific direction as a result of planned intervention developed on the theoretical framework of Festinger's theory of cognitive dissonance.

2. A cognitive in-service program designed to provide educational staff information about career education and instructional skill and field testing instructional units is not effective in positively modifying the attitudes of resistive teachers.

3. Active participation via role playing does increase attitude change. Evidence substantiates that both the pro and con role playing groups experienced attitude change consistent with their role. However, in order to directionalize a positive change in resistive teachers, discrepant role playing must be induced.

4. Teachers who self-select a position favorable to career education and maintain that posture through a series of role playing exercises experience a short-term attitude change.

5. The subscales acceptance and commitment changed as a result of treatment whereas the change orientation variable remained unchanged throughout the duration of the experiment.

The change orientation scale is a relatively stable attitude measure as compared to the subscales acceptance and commitment.

Recommendations

As previously noted, during all periods of change and especially the change we're now experiencing in career education, staff will view it (the change) in differing ways. It is suggested that staff with differing attitudes toward change do not receive the same kind of in-service. Through our experience during the past two years, it appears both wise and cost-effective to initially assess where staff are in relationship to accepting or rejecting career education and deal with them on that level.

We have found that dissonance can be addressed effectively and that it should be treated before such staff deal with the mainstream of program activities. This approach is in line with the basic principles of in-service which states that any staff training program should be designed to meet the needs of the specific audience.

Implications Of The Study For Teacher In-service Education

Teachers and their activities in the classroom are the concern of the staff development effort within a school district. The ultimate goal of staff development is to improve and make more effective the educational opportunities provided for children. To accomplish this goal, educational renewal procedures are being designed to facilitate the professional development of teachers and other staff members.

The public school teacher is characteristically goal oriented and wants to be involved in learning situations that are important to him. If an in-service education program for teachers is to be successful in effecting behavioral change, the program must be designed to meet the needs, interests, and desires of its clientele.

Although desirable, it is not always possible for teachers to plan and design program strategies. Teacher training programs often stipulate learning outcomes that are required for program adoption. This emphasis on an engineering effort in curriculum development and program adoption may create teacher noninvolvement. District planning, accountability, and specified program outcomes will tend to reduce the autonomy of the public school teacher. As more tested products are developed and installed, many teachers are likely to assume a passive, resistive role in the implementation process.

Teacher indifference and resistance to change must be considered when designing in-service education programs. One of the important implications of this study is to recognize as natural, a teacher's resistance to influence and accept it as a factor that must be considered when planning teacher in-service programs.

A desired outcome of this study is to point out the importance of developing in-service programs that are specifically designed for educational staff members resistive to change. Surprisingly little research has been generated to study the characteristics of those who are resistive to influence. Consequently, the resistive teacher is often viewed in a negative perspective of being poor in the performance of this role. We view the resistive personality as being inner directed with a firm philosophy that provides purpose and direction to life. Resistance to influence is characterized by individuals who are not actively seeking change, and therefore, are likely to be better adjusted, and have reached a more satisfying state of personal affairs. We also believe that special effort should be made to involve persons resistive to influence in the adoption process because "once sold" on the merits of a program, they will provide greater credibility and have a more positive enduring effect in the total educational environment.

As professionals responsible for the ongoing competency renewal of our nation's educational practitioners, the problem of attitudes should be a critical one. The concept of career education has swept the country during the past two years and has had long-lasting effects. During this period and in the future, local districts need professional advice on how to prepare all sub-sets of educators for their new role. During all new change periods, career education not exempted, there are those who for good and poor reasons stand up and oppose the new change being touted. Teacher educators must be ready to extend a hand to their surrounding districts in an attempt to (1) study the dissonance, (2) identify the individuals, (3) prepare special in-service programs, and (4) study the change and effect of the in-service.

With 40 percent of our nation's schools still small in size and rural in location, and 24 percent in suburban areas and 34 percent in cities, the diverse needs are evident. Only few of our schools can afford to have on staff a team of professionally trained researchers and in-service specialists. It is for that reason we have universities and colleges staffed sufficiently to meet the present needs of their state's schools.

We challenge all professional teacher educators to reach out, assess the problems your local districts are having in preparing for implementing career education. Without your help, career education may falter which, in the end, means a more relevant form of education will be lost because we weren't ready to take the challenge seriously.

Society is changing because education has and is changing. Let us all play our critical roles so that history will record many new advances for our country in the 70's and 80's. Such advances will be one measure of our accountability.

TRAINING PROGRAM FOR IN-SERVICE COORDINATORS OF CAREER EDUCATION PROGRAMS

By: Anna M. Gorman

As new endeavors emerge in our lives, the need for coordinating the new with the present or ongoing is paramount. We, in the Staff Development Unit of the Comprehensive Career Education Model (CCEM), examined the many facets of change that would have to occur as career education was introduced into school systems. Through this examination, we saw the coordinating role or function as being primary and designed the function of coordination into the Staff Development Model.

Being a group with eclectic beliefs, we meshed our idealism with pragmatism as we designed our model of staff development with the coordination function being vested in the "in-service coordinator." We envisioned a person or a group of people within a school building taking the leadership role of coordinating all in-service activities deemed essential for installing a comprehensive career education program.

Staff Development Model

Our Staff Development Model has five sequential phases, each of which consists of one or more steps (see Figure 1). Phases I and II are concerned with the selection, organization, and training of personnel who will have major responsibility (at the local level) for planning and conducting the in-service program. These personnel include the CCE advisory committee and the in-service coordinator. Phases III, IV, and V represent the three major phases believed necessary in the preparation of all the staff (at the local school level).

Phase II In-Service Coordinators

Since I am reporting on a product in the Phase II program for the in-service coordinator(s), no effort is made in this paper to explain the complete Staff Development Model. The publication, *Staff Development Guidelines for Comprehensive Career Education*, has more complete details.

The function of coordinating the activities of the in-service education program must be identified, and then, responsibility and authority for the conduct of it fixed. The person or persons with this responsibility and authority should be charged with giving leadership to all phases of the in-service education program.

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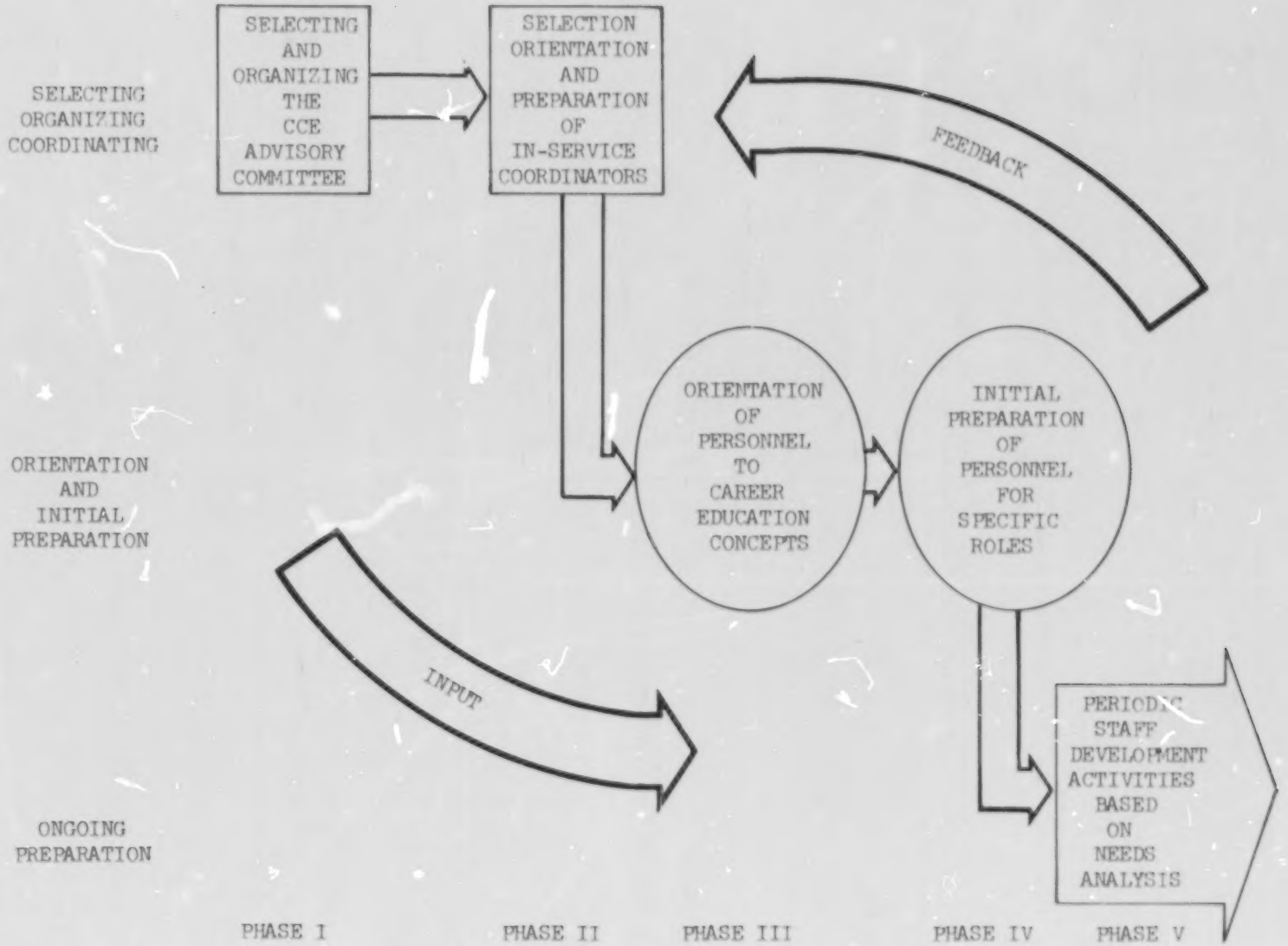

Figure 1. A CCE Staff Development Model.

To help the in-service coordinator(s) prepare for the tasks, a special CCE in-service program (Phase II) has been designed in the Staff Development Model. Their in-depth preparation program parallels the emphasis given to Phases III, IV, and V of the model with the major difference being that their program requires greater comprehension for they have responsibility of guiding others in understanding the concepts and problems associated with implementing career education. See Appendix A for a list of the products related to the CCE Staff Development Model.

Role And Responsibilities Of The In-Service Coordinator

Among the activities that we did in the Staff Development Unit was to identify the roles and responsibilities of the in-service coordinator. We envisioned the in-service coordinator as exhibiting the following competencies:

1. Ability to develop and support new educational design, its structure and provide assistance for its delivery.
2. Competencies in people and process skills (group dynamics, flexibility and sensitivity).
3. Ability to garner policy and budgetary support for staff development program.
4. Competency to motivate and lead professional educators.
5. Expertise in infustion–CE curriculum implementation.
6. In-depth acquaintance with CE concept and ability to communicate concept to others.
7. Ability to offer a professional climate, process, and immediate and ongoing support needed in operational leadership.
8. Ability to work with non-educators, as well as the professional educators.
9. Knowledge about and involvement with the community in its concerns, goals, and resources.
10. Ability to plan for and manage lone-range goals as well as daily work loads.
11. Ability to plan and organize programs within the time and energy constraints of the people and school involved.
12. Ability to identify and utilize resources to have a direct impact on goal attainment in the in-service education program.

13. Ability to integrate varied CCE components—curriculum, guidance, support systems, community resources, evaluation—into one coordinated program.

In-Service Coordinator Training Program

In the Phase II in-service coordinator(s) program, one step is that of an "orientation to the roles and responsibilities of the in-service coordinator." We, in the Staff Development Unit, thought that an instructional program should be developed to assist school leadership in realizing this step in staff development.

Procedures

Early in 1973, a needs assessment form was developed and mailed to all of the people who were serving as in-service coordinators (building coordinators) in the six pilot LEAs. The list of competencies (mentioned above) with a few modifications formed the items on the Needs Assessment Form. The results of this assessment formed the broad conceptual framework for the orientation to the roles of the in-service coordinator training program.

Self-instructional concept was the form of instruction decided upon for the program because of the following reasons: (1) we envisioned that the personnel selected as in-service coordinators would be quite "masterful" in their field whether they be teachers, guidance counselors, or administrators and, therefore, they should have a program where certain aspects could be bypassed because of their expertise; (2) since the Staff Development Model called for each school to have an in-service coordinator, we wanted a program that was tailored for individual instruction rather than group instruction—in other words, since this position may involve only one person in a school system, where would one get a group, and then, who would do the instructing; (3) utilization of self-instructional modules compliments the learning principles of self-pacing and self-selectivity of experiences.

Using the broad concepts obtained from the needs assessment survey, we then convened a group of educators to assist us in developing the subconcepts, behavioral objectives, learning experiences, evaluation ideas, and resource suggestions for the modules. These educators included some of the CCE project LEA in-service coordinators, an elementary principal, an LEA career education staff in-service coordinator, and personnel from The Center for Vocational and Technical Education.

After the initial development of the program modules, a group of five educators (using a modified DELPHI) gave suggestions for its revision. These suggestions were analyzed and incorporated into the present product which is now being pilot tested in two different sites.

Product Description

The program is titled "A Training Program for In-service Coordinator in Comprehensive Career Education". The purpose of the program is to orient school personnel, who have accepted the responsibility of being an in-service coordinator in a career education program, to his or her roles and responsibilities in the program. The word orient or introduce is important to note for this program does not involve in-depth comprehension of any of the concepts, although it does highlight five of the roles.

The training program is composed of a manual, a set of six tapes, with 175 slides. The manual begins with a pretest. An example of one of the items is: "What do you see the roles and responsibilities of the in-service coordinator to be in a comprehensive career education program?"

The next section is called the Introductory Section and is on the "Roles and Responsibilities of the In-service Coordinator in a Career Education Program". In this section, the trainee reads in the manual, views a slide/tape presentation, and then reads an overview and rationale for the training program.

Then, five training modules related to five specific roles follow: Module I – In-service Coordinator's Role in Implementing Instructional Design; Module II – The In-service Coordinator's Role in Evaluation; Module III – The In-service Coordinator's Role in Providing Instructional Materials; Module IV – The Administrative Responsibilities of the In-service Coordinator; and Module V – The In-service Coordinator's Responsibilities for Public Relations. Each of the modules has a purpose section in the manual and a slide/tape presentation. Each module then has an in-depth review of the material presented in the slide/tape presentation; in this review, problems and situations are given to stimulate and clarify concepts presented. Four of the modules then have a section in the manual that contains study exercises and follow-up activities, including additional references in some of the modules.

After the fifth module, there is a Summary Section in the manual. This contains a Program Summary and an Epilogue. This section is followed by the post-test. The last section is the Appendix which contains the six scripts used for the tape recording.

Module Description

Module I is designed to increase the trainees' awareness of the meaning of instructional design and of the responsibilities the in-service coordinator has for instruction in a career education program. The module has three objectives:

- the trainee will be familiar with the concept of instructional design for in-service training and the steps involved in it.
- the trainee will be aware of some of the responsibilities of the in-service coordinator in instructional design.

- the trainee will realize the importance of effective communication and its relationship to his/her role in instructional design.

The coordination function, as expanded on in this in-service instructional design module, focuses on determining whether or not existing comprehensive career education units and programs are appropriate for the school(s) and situations, and then, planning and instituting an in-service education program to assist school personnel in effectively implementing the selected career education program. The module expands on a five step instructional design: needs assessment, setting goals and objectives, determining instructional methods and techniques, implementing the program, evaluating and revising the program. Examples of utilizing the five instructional steps are given in the manual. An example follows:

How can you, the in-service coordinator, utilize needs assessment?

In implementing existing comprehensive career education units and program	In planning your own in-service program
• To determine who would benefit from studying a given unit	• To determine what kind of information, assistance, and instruction the school personnel need

One section of Module I deals with the importance of interpersonal communication in the coordination function. In the Follow-up Activities in the manual, one suggestion given to the in service coordinator is:

> Videotape some of your one-to-one sessions, then play them back at a later time to assess how you dealt with various situations. You may wish to check the previous suggestions in this notebook regarding interpersonal relations to see if you are embodying them in your interpersonal relationships.

The purpose of Module II is to give a deeper look at the important function of evaluation as another responsibility of an in-service coordinator of career education. There are three objectives in this module:

- the trainee will be aware of the importance of evaluation and its place in the educational program.
- the trainee will understand the nature of the evaluation process and of the various evaluation techniques.
- the trainee will recognize the in-service coordinator's special responsibilities in evaluation.

This module emphasizes the evaluation function by moving the trainee logically through the following steps: why evaluate, what to evaluate, benefits from evaluation, and how or techniques or methods of evaluation. The module also emphasizes the analyzing and utilizing of evaluation input and using the evaluation results for program, etc., revision and future planning.

In the "Study Exercises and References for Further Study" section of the module, hypothetical situations that an in-service coordinator may be called on to evaluate are listed along with suggested responses to the situations. An example follows:

1. Situation: as a part of your role as in-service coordinator, you designed (after consultation with the teacher) and produced a filmstrip and an accompanying game as instructional materials to fill a gap in what was commercially available in a particular career education unit. The developed materials have been used by several classes where this career education unit was taught. Before deciding whether to produce similar materials for different career education units, you wish to evaluate their effectiveness in this situation.

Your Responses	Our Responses
(a) Why do you want to evaluate these materials?	
(b) How do you start in evaluating? What do you need to know first? What precisely do you want to evaluate about these materials?	

The purpose of Module III is to take a look at the nature, applicability, and use of instructional materials and how the in-service coordinator is to function to facilitate their effective use. There are three objectives:

- to give the trainee an awareness of the nature of instructional materials and their applicability to the learning process.
- to familiarize the trainee with the nature and range of commercially available instructional materials and develop an understanding of how to obtain, store, and use such materials.
- to make the trainee aware of the need for local development of instructional materials and to familiarize him/her with some basic production techniques.

Module III treats three distinct topics: (1) the acquisition and dissemination of commercially-produced instructional materials; (2) the local development of instructional materials; and (3) the

relationship of instructional materials to learning activities. In the "In-depth Review of the Slide/ Tape Presentation" section of the module in developing the topic of acquisition and dissemination of commercially-produced instructional materials, the material for the trainee to read is in the form of questions with their possible answers. A few of these questions are:

- What is meant by "instructional materials"?
- Why should the in-service coordinator be concerned with instructional materials?
- What materials are needed in career education and where can they be found?
- What determines whether or not materials should be acquired?
- What is the in-service coordinator's role in determining whether or not to acquire certain materials?
- What does the coordinator do with the instructional materials once they are acquired?

In the "Study Exercises, Follow-up Activities and References for Further Study" section of the module, the following activity is suggested for the trainee. This activity appears under the topic of Relationship of Instructional Materials to Learning Activities.

- Locate a sound film or a slide/tape presentation, a filmstrip, and a textbook or pamphlet on a very specific topic—such as "The Job Responsibilities of Being a Nurse." Compare each instructional material as to: (a) informative effectiveness; (b) interest; (c) audience involvement. How might each one best be used?

The purpose of Module IV is to present the role of the in-service coordinator as an administrator/ leader in a comprehensive career education program. The objectives for this module are:

- to give the trainee an understanding of the processes involved in program administration, their nature, and their sequence.
- to acquaint the trainee with several important human relations or communication skills.

The administrative responsibilities of the in-service coordinator in this module focus primarily on the functions of (a) task analysis, (b) planning, (c) implementation, and (d) evaluation. Task analysis involves overseeing the following sorts of tasks:

a) development of comprehensive career education orientation programs.

b) design and implementation of a comprehensive task development program.

c) infusion of comprehensive career education units into the existing school curriculum.

Some of the competencies an in-service coordinator may need in order to fulfill the planning function are listed. These may be: identifying and using existing staffing patterns and lines of communication; assessing staff capabilities, and then, setting up and directing task forces; identifying and specifying appropriate procedures for task accomplishments.

For the implementation and evaluation functions involving administrative responsibilities, the module emphasizes the need for the following skills and responsibilities. They are:

a) counseling in relation to the implementation of comprehensive career education units and the program.

b) planning, scheduling, and supervising meetings related to implementation of CCE units and the program.

c) unit, program, and implementation overall evaluation.

d) ability to use the problem-solving technique.

e) unit, program, and implementation revision based on in-depth evaluation.

The importance of effective communication is emphasized in this module. The tasks outlined for fostering effective human relations are: (a) fostering positive staff morale; (b) understanding staff relationships and the constraints to interaction; (c) utilizing a sense of timing in making contacts with teachers, administrators, and others; (d) expressing a concern for and understanding of others.

The purpose of Module V is to introduce the importance of and responsibilities for public relations as they relate to a career education program and the in-service coordinator. The objectives of this module are:

- to familiarize the trainee with the nature of public relations.
- to familiarize the trainee with several important publicity techniques.
- to convince the trainee of the importance of good human relations skills and effective communication skills in public relations.

This module focuses on the value of effective communication upon public relations. It emphasizes that good communications requires knowing the audience, being familiar with the school and the community, utilizing existing avenues of communication, and developing his or her own avenue of communication. Some publicity techniques are presented for the trainee with CCE applications.

In the "Study Exercises, Follow-up Activities and References" section of the module, the following study exercise appears:

- Make a list of what you believe are the major publics in your community to which you think messages about CCE should be transmitted. List the types of information you think would be of most interest to each public.

Comments About The Training Program

This self-instructional program is not meant to function as the entire educational program for an in-service coordinator in a career education program. It is a program to introduce this person to his or her roles and responsibilities as an in-service coordinator. Also, it is a general introduction to the roles and responsibilities for a comprehensive career education program, not for a specific career education program for a specific state or local district. These are some of the limitations of the program.

Utilization Ideas

As I thought of the contributions this training program may have for the education profession, I thought of a few situations where the program may have merit. My position, just prior to coming to The Center, was in a rural state. I can envision this program being completed by the principal for he or she would probably have to serve as in-service coordinator in order to install a career education program in rural settings.

If I was a public school administrator in a large school district and had the responsibility to select and/or employ an in-service coordinator, I'd utilize the program in order to develop criteria for selection of the in-service coordinator based upon the roles and responsibilities brought out through the program. Further, I'd find data through use of the program to sell the idea of an in-service coordinator to the board of education, if this was another problem of mine.

If I was in a state department of education in the personnel development unit, I'd utilize parts of this program to sell the need for district and local levels of in-service coordinators, when installing career education programs.

As I specified earlier, this is a general training program. We need those of you who are talented in program writing to develop further programs that are for specific schools, districts, states. This program is only being pilot tested by The Center. We need those of you who are responsible for research projects to discover what kind of in-service programs are being organized and conducted by those people who are involved in career education in your area. We need to know the circumstances, situations, and people that are benefited the most by this training program and the additional needs they have to function effectively.

The experience of working with people having in-service education coordination functions this past year, has committed us to the validity of the coordination concept. We see a great need to

prepare professional leaders to effectively perform the roles and responsibilities of in-service coordination. Institutions of higher education may wish to carefully study the need for such a leadership program, and then, develop the program at the graduate level, to fulfill the determined need. It seems to me that the greatest challenge would be that of program development. Selection of candidates for such a program is also a problem that needs study. You will also notice that the suggested level of study was at the graduate level; it may be that a program to prepare in-service coordinators could be within a continuing education department.

I can also see this training program being used as an aid in helping people to select themselves in or out of an in-service coordinator position. Thus, if some individuals express a desire to be an in-service coordinator, I'd let them take the program to enable them to make a more realistic decision of whether or not to apply for the position.

These are only a few ideas I have for utilizing this training program. I hope the program, when it is released, will be of value to you in the profession.

APPENDIX A

CCE STAFF DEVELOPMENT
PRODUCT DESCRIPTION

CCEM PRODUCTS RELATED TO THE CCE STAFF DEVELOPMENT MODEL

Advisory Committee Materials	In-service Coordinators' Materials	General Orientation to Career Education Materials	Specific Audience Role Orientation Materials	Special and Ongoing Staff Development Materials
1. Community School Advisory Committees*	1. Staff Development Guidelines for CCE	1. Self-Instructional Orientation Module	1. In-service Training Program for Administrators of Career Education Programs	1. Community Resource Utilization Program
	2. In-service Coordinators Training Program	2. General Orientation In-service Training Program (for small or large group)	2. Staff Development Program for Career Education in the Elementary School	2. Teacher Awareness Module
	3. Glossary for Staff Development		3. Curriculum Unit Installation Module	3. Attitude Change Module
	4. Abstracts of Staff Development Resources for Career Education		4. In-service Training Program for Teacher Aides in CCE	
			5. In-service Education Simulation Program for Occupational Exploration Teachers	

*This product is contained in the Community Resource Utilization Program

IN-SERVICE COORDINATOR MATERIALS

1. Staff Development Guidelines – The focus of this product is on suggested goals, strategies, and resources for planning and conducting a comprehensive local staff development program. In addition to describing a training program for in-service coordinators, a suggested management plan and guidelines for preparation of all participating staff are included. The guidelines are primarily printed materials, but include a staff development model and other illustrations.

   The guidelines themselves are for use by state department, university and local school district personnel who are responsible for planning and implementing an in-service program for all participating staff. Sections of the guidelines are devoted to preparing the in-service coordinators for their task in preparing administrators, teachers, counselors and support staff for their roles. The field test version of this was printed in May 1972, and a second revised edition is due approximately June 1, 1974.

2. In-service Coordination of Career Education – The focus of this product is on topics such as: developing leadership skills, problem-solving skills, and coordinating and/or conducting the staff developing sessions. The product is in the form of self instructional modules to be utilized by career education coordinators either as an individualized mode or in small groups. Each module has an introduction, general objective(s), performance objective(s), learning techniques, evaluation, and resource section.

   The intended user audiences are LEA Career Education directors, university and state department personnel. The effects of the use of these modules would be better informed and prepared in-service coordinators. The programs are presently undergoing testing and are scheduled for completion in early 1974.

3. CCEM Staff Development Glossary – The focus of this product is to provide a dictionary of CCEM and career education terms and definitions. It is our intent to provide a concise, easy to use reference for clarifying terms especially relevant to career education. Its main purpose is to provide a document that represents all of the available information at this point in the CCEM conceptualization. The product is a spiral bound document, size 7" x 10" containing approximately 175 terms and definitions.

   The intended audience includes CCEM/CVTE personnel, LEA personnel, and other persons interested in or involved with career education and program adoption. Through the efforts of CCEM staff, local and national review boards, the expanded and completed document was published in June 1973.

4. Abstracts of Staff Development Resources for Career Education – This product consists of many abstracts of selected resources that should prove useful to educators who are involved in organizing and conducting in-service education programs in career education. Bound with a plastic binder, the 8½" x 11" publication consisting of ninety pages was completed in June 1973.

USING COMMUNITY RESOURCES IN CAREER EDUCATION: AN IMPERATIVE

By: Robert E. Norton

With the implementation of career education, the need to establish new and strong cooperative relationships between schools and their communities has become an imperative! We must immediately proceed, as educators, to bring about both more extensive and more effective utilization of community resources in public education. Schools cannot and should not attempt to provide a total educational program for students by themselves. There is no way of bringing the relevancy demanded by career education into our school programs without really opening up our schools to the world that surrounds them.

We, as educators, must honestly recognize and admit that we cannot provide career education ourselves! Further, we must sincerely and frankly admit our shortcomings to the community and solicit its help. We must help members of the community—parents, employers, employees—and organizations of the community—civic, governmental, and social—to identify their role in implementing and conducting career education programs. We must "turn on" the community by informing the public of career education and by devising strategies so that everyone who wishes can become a part of the career education process in a way that is meaningful and satisfying to him, and in a way that contributes significantly to meeting the needs of students.

These are challenging words to those of us responsible for the preservice and in-service preparation of teachers and administrators. To do what is being suggested means work—hard work for us and for others. But before we dismiss the whole idea in favor of letting someone else do it, let's look at what can be gained and what it will cost.

What can be gained from more effective and more extensive community involvement in most communities? Many specific benefits can be cited but for our purposes, six major ones will serve to illustrate the benefits of increased school-community-cooperation:

1. Availability of Skilled Resource Persons in Many Fields—The human talent available in even the smallest of communities is vast and often nearly untapped by the educational system. All types of workers reside in most communities—the professional, technicial, skilled, semiskilled, and the unskilled. And many of them are willing and anxious to help.

2. Availability of Materials and Equipment that the School Cannot Afford—Many printed and audiovisual materials are available, generally just for the asking, from local businesses, industries, organizations, and agencies. Some of them are not useful in public educational

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programs but many of them are. For vocational programs, in particular, local businesses and industries, often have costly specialized equipment that may be borrowed or demonstrated on-the-spot, facilities that may be used on at least a limited basis, and by-products of their operations—wood, metal, fabric, plastic, etc., that may be obtained for little, if any, cost for educational purposes.

3. Instruction Related to Outside World Activities—With community involvement, in whatever form or focus, the relevance of instruction to how it is really done in the business world is automatically increased. Advisory committees, resource persons, field trips, borrowed or loaned equipment, or facilities all tend to greatly improve the relationship of what is taught to what really happens in the community.

4. Youth More Aware of Local Career Opportunities—By involving parents, employers, and employees in the educational program, the students cannot help but become more aware of the type of employment opportunities that exist locally and their advantages and disadvantages. Much of the literature and the audiovisual materials available from business and industry will contribute to the same end. And this says nothing of the benefits regarding career planning that are to be gained from observational and hands-on exploratory experiences.

5. Youth More Adequately Prepared for Employment and/or Further Education—Contact with community workers brings with it in a variety of ways greater awareness of the skills, knowledge, and attitudes required for specific types of employment. It also means firsthand information about the type of vocational, technical, post-secondary, or higher education needed by those who aspire to hold specific positions. Since awareness precedes choice, the information to be gained firsthand about job requirements and educational requirements is vital to sound career planning. And as vocational educators well know, the preparation experiences gained from work study and cooperative education programs cannot be duplicated in any other way.

6. Youth More "Turned On" to the Relevance and Importance of Education as Preparation for Life—To use today's vernacular, to have an employer "tell it like it is," means much more to most students than having the teacher say the same thing. We, as educators, would generally agree the closer the source of the information to the real thing, the better the information and the more attention it will be given. Employers and others in the work community can help teachers and counselors in their efforts to help all students understand the importance and relevance of education to life, no matter what career goals they decide to pursue. Community participation can help students realize the importance of adequately preparing for their next step, whatever it is.

Now let's look for a moment at what it will cost to bring about more effective and more extensive community participation in education. The question of cost is generally the first one asked by administrators and board members when a new program or program modifications are called for.

This is especially true today with the increased concern for accountability and the many taxpayer revolts that have resulted in more rejected school bond issues than ever before in history.

The writer firmly believes that increasing community involvement offers not only one of the very best ways of improving our educational programs but also one of the cheapest available ways of improving them. That is not to say that none of the possible community involvement type activities will cost money, but rather that many of them can be implemented at low cost and in some cases for practically no cost.

First, some no cost or practically no cost activities:

1. Resource Persons—parents, employers, employees, etc. can be brought into the classroom with the only investment being a letter and/or a short telephone call.

2. Work Experience—exploratory, general, and cooperative work experience opportunities exist in all communities to some extent. Again a telephone call, a letter, and/or some visits to explain and supervise the work experience program is generally all that is necessary.

3. Information—free materials and information are generally available locally for little or no cost including career information, technical information about industrial processes, and career placement information.

4. Supplies, Equipment, and Materials—many local businesses will supply upon request sample copies of business forms, job applications, etc.; will loan specialized or surplus equipment; and will give the school various by-products of their operation (wood and sheet metal scraps for example).

5. Advisory Groups—the school can, with little or no cost, secure expert advice and opinion in many areas.

6. Tutoring-Advising—assistance on a one-to-one basis is one of the most effective and under utilized techniques available whereby community persons serving as tutors can provide a vital service to students, particularly the less able and low motivated students who might otherwise be lost.

A few of the more costly activities that when weighed against the benefits to be derived cannot be considered prohibitive include:

1. In-service Education of Staff—although some in-service education time for staff is generally a part of the regular school program, it does take time and does cost money. The fact that community resources are under utilized and often ineffectively utilized, however, speaks strongly of the need for an effective in-service program for most staffs. Printed materials, as we well know from past experience, will not do the job alone. We must deal with the

attitudes as well as the understandings and skills of staff as regards effective community resources utilization.

2. Development of Community Resources Directory – this is a low cost activity, relatively speaking, but the development of a comprehensive community resource directory can go a long way toward making staff aware of the resources that are available and suited to their particular needs.

3. Field Trips – although the cost of transportation for field trips is relatively low in comparison to many other educational costs, it does add significantly to already tight budgets.

4. Additional Staff – the size of the school system will determine whether part-time or full-time staff are needed to effectively develop and coordinate the community involvement program. Here the benefits to be gained must be carefully weighed against the costs to be incurred and the monies available.

Before going further, let's briefly address the topic of the role of community involvement in career education and the views of educators and community representatives toward such involvement.

A review of what might be called the principles or tenets of career education quickly reveals that there is nearly unanimous agreement that "career education involves the entire school program and that it should unite the school and community in a cooperative educational venture." One of the five initial program requirements for career education, laid down by the U.S. Office of Education as development of the Comprehensive School-Based Career Education Model (CCEM) that was launched in July of 1971, was that the educational program to be developed for grades K through twelve around the career development needs of each student must "incorporate community resources and non-school educational opportunities." It is stated in different ways by different writers but all are in essence saying that a new partnership must be formed if career education programs are to provide the broad range of educational experiences needed to prepare students for more rational career choices and more relevant career preparation.

What about the views of educators and community representatives toward the use of community resources in career education? To answer that question and the question of what factors tend to inhibit the use of such resources, we in the Staff Development Unit of CCEM developed a questionnaire last spring that was completed by 116 educators from five different school districts, and an interview schedule that was administered to 200 persons representing five different community sub-populations in two different communities this summer.

Prior to conducting the study, we were already aware that many teachers in the six local education agencies (LEAs) that were participating in the development of the school-based model were making little and in some cases practically no use of resource persons and field trips. For example, to the question, "During the previous school year, how many people visited your classrooms to talk about their jobs and the kind of work they do?", 63 percent of over 2800 teachers from the six LEAs replied none. To the question, "During the previous school year, how many trips did your

class(es) make to observe work being performed?", 68 percent replied none. And to the question, "During the previous school year, how many trips did your class(es) take to places other than work settings?", 55 percent replied none.[1]

Several interesting findings came out of the educator survey. Time allows for the sharing of only a few at this point. The attitudes of 116 educators (primarily administrators and in-service coordinators) from five large school systems toward the use of community resources is pretty well summarized by their response to the question at the end of the survey which asked, "In general, the utilization of community resources should be:

		PERCENT RESPONSE
A.	Greatly Expanded	93.0
B.	Remain About Same	7.0
C.	Greatly Reduced	0.0

Over 58 percent of the same group felt that the major inhibiting factor as regards use of community resources was simply teacher unawareness of the resources actually available. The biggest factor reported as inhibiting the use of study or field trips was the lack of and cost of transportation.

We came up with similar findings from the 200 community interviews conducted last summer. A few of the highlights follow:

a. 95.4 percent of all respondents said they favored the use of resource persons in school. Most (166 out of 197) said they were "very favorable" toward having resource people in the schools.

b. 97.0 percent of all respondents answered that they were either "very favorable" or "somewhat favorable" toward the use of field trips as a part of regular school activities.

c. 98.5 percent of the respondents were favorable toward having students work part-time in local businesses and factories as a way of learning about different jobs and at the same time developing skills which will help them become successful employees after graduation.

d. 83.3 percent of the respondents indicated that they favored the use of advisory committees. The respondents felt, however, that teachers and administrators were somewhat less favorable toward advisory committees (51.6 percent for teachers and 54.2 percent for administrators).

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[1] *Attitudes Toward Career Education*, a report submitted to The Comprehensive Career Education Model, The Center for Vocational and Technical Education, Columbus, Ohio, by The Institute for Educational Development, New York, New York, February 1972.

From the data presented, we can easily draw two major conclusions, which while they may not be true for every community in the country, are true for the communities and schools surveyed. First, we have evidence from a large number of teachers who say they simply are not making any use of field trips or resource persons. Second, we have indications from both educators and community representatives that they highly favor the use of community resources in education. The nagging question that arises then is, why don't we have more use of these resources? What are the inhibiting factors that prevent the desires of the educators and the community from being fulfilled? We don't have all the answers for sure but we do feel we have some good insights into the problem.

Before dealing directly with those insights, consideration is given to what might be called some school-community tenets. What principles or beliefs do we generally hold to be true as regards the school and the community?

The following are offered for your consideration:

SCHOOL-COMMUNITY TENETS

1. Learning does not occur exclusively in schools.

2. Career education requires that the work world and the school world be brought together.

3. New school-community cooperative relationships are essential.

4. Relevant education requires expanded community involvement.

Let's assume we agree (at least in part) that effective use of community resources is vital to any educational program and especially to a career education program. We are still faced with the question of what are the proper roles of both the school and the community in terms of facilitating the type of involvement sought and according to the surveys discussed, desired by both educators and the community. Each of the roles presented here, first for the school and second, for the community could be further delineated but the ones presented will serve our purpose.

The SCHOOL should:

- Be sensitive to community needs.
- Utilize community resources both in-school and through out-of-school study trips.
- Involve community representatives in appropriate advisory and decision-making roles.
- Publicize the type of resources and involvements needed.
- Coordinate the use of resources.

The COMMUNITY should:

- Keep informed about its schools.
- Insure that school programs are relevant.
- Offer appropriate resources and assistance to its schools by getting involved.

Each of these could be commented upon and some will be later but now let's go back to consideration of some of the problems that prevent more effective and more extensive use of community resources. These problems may be broadly categorized into two major areas: poor communication and poor coordination.

First, the problem of poor communication. We sincerely believe that in many cases educators do not understand the many benefits to be derived from community involvement. And why should they? What have we done in our teacher preservice and in-service programs to illustrate and demonstrate the benefits to be gained from field trips, resource persons, and advisory committees. Of course, some educator groups, including vocational educators do a better job in this area than others. But do we do enough? How many student teachers have we placed where no advisory committee exists, except perhaps on paper? How many student teachers complete their field experience without ever having planned and conducted a field trip, without ever having arranged for a resource person or for a work experience program?

Educators are unaware in many cases of business, industry, and parent willingness and desire to cooperate. There is a very natural reluctance on the part of most people including educators to ask favors of others for free. And yet, community people often wonder why they are never asked to assist in any way. The two groups want and need each other's help but are too often put in the embarrassing position of having to ask for it as in the case of the teacher and in the position of not really knowing who to offer assistance to as in the case of community persons. We must establish some frank and free-flowing means of two-way communication to overcome this hurdle.

Educators are also simply unaware of the vast amount of facilities, equipment, materials, and talent available in their local and nearby communities. As I reported earlier, over 50 percent of the educators surveyed in five school districts reported that they believed a major inhibiting factor was teacher unawareness of available resources. Remember, awareness must precede choice! When we are unaware of resources that could do a better job, we are forced to resort to the worn out lecture method or the same old equipment we've always used.

But, poor communication is only about one-half of the problem. We also have the problem of poor coordination and its many harmful attributes. More effective use of community resources requires a systematic and organized approach. How many school districts do you know of that have a definite and well-thought out plan for maximizing the use of community resources? How many cases do you know of where all arrangements, planning, coordination, etc., are left entirely up to the teacher? Here is one good place to start in most school systems that really want to effect change.

More extensive use requires coordination of educator and community efforts. How many school districts do you know of who have a school-community resources coordinator who is given ample time and resources to do a really effective job? With some coordination, a resource person coming to school to meet with one class might very well meet with two or more classes that have been combined or stay an extra hour to meet with another class. With some coordination, the same business or resource person will not be called upon unduly to contribute time or other resources while a similar business is not contacted at all.

The problem of coordination also strongly suggests that a community information and resources clearinghouse is needed. A central location where teachers and counselors can funnel their requests and expect to receive quick and courteous assistance is essential to a viable program. In the same way, a central office or location where parents, employers, and others can phone in their offers of assistance or where they can drop by to demonstrate their sincerity and perhaps explain the types of resources available is as vital to a successful community resources utilization program as the ERIC Clearinghouses are to the dissemination of educational information.

Now that we have briefly discussed some of the major problems and inhibiting factors, let's turn our attention to some of the possible solutions. Not all of these will be equally appropriate for all school districts but all of them and others unmentioned should be considered by all districts who seek an effective and well coordinated program.

PROPOSED SOLUTION 1—The National Association of Manufacturers (NAM) recommends the following plan that merits careful consideration by persons at all levels of education. They advocate "that a qualified person of appropriate rank be designated at the federal, state, and local government education levels to coordinate and encourage business, industry-education cooperation."

PROPOSED SOLUTION 2—Every educational system that is sincere about its intent to implement career education and to maximize the effective use of community resources, should develop and make available to every teacher, counselor, and administrator in the system a copy of a Community Resource Directory for Career Education. The directory should include an inventory of resource persons, businesses and industries, community agencies and organizations, governmental agencies, and parents. Often local chambers of commerce and other groups have been of invaluable assistance in compiling such a directory. The value of such a directory to a busy teacher or counselor who wants to make use of the best community resources available but does not have the time to locate such resources cannot be overstressed. Remember, over half of the educators reported that the lack of awareness of resources available was a major obstacle to their use. While on this topic, we must not forget the too often overlooked resources that are possessed by the educational staff. Most teachers, counselors, and administrators have held other positions or jobs for at least short periods of time. An inventory of these readily available "in-house" resources can also make a valuable contribution. One district reported that the students saw their teachers in a new light (as more human, of course) once they realized teachers could no more than "just teach."

PROPOSED SOLUTION 3—Another solution for many districts will be the initiation, activation, or expansion of the use of advisory committees or councils. Only persons who have had some

direct or close association with their proper use can fully realize the benefits to be gained from them. Many teachers and administrators after discovering their value firsthand have stated "I don't know how I ever got along without one." Yet many educators continue to fear and almost "shake in their boots" at the thought of having to organize and use an advisory committee. Again, somewhere, somehow, we are failing to clearly demonstrate their use and value in our preservice and in-service teacher education programs.

PROPOSED SOLUTION 4–Greater use must be made of the vast talent that can be assessed through use of resource persons. Since cost is not a factor here, there is no really satisfactory excuse, other than possible lack of awareness, that should be accepted as explanation for failure to enrich the educational program in this manner.

PROPOSED SOLUTION 5–Greater use of study or field trips should be made. Again teachers must be made aware of the businesses and industries that are willing and able to host various types of trips. The board of education and administrator also have a responsibility of making transportation readily available for such trips.

PROPOSED SOLUTION 6–The services available through community organizations, both governmental such as the employment security division, and non-governmental such as civic groups, are often relatively untapped. Many of the governmental agencies have official responsibility through legislation or other orders to assist the educational community in any way they can. Similarly, the Kiwanis, Rotary, Lions, and other civic clubs all have educational or vocational guidance committees of one kind or another. They often are anxiously seeking ways to provide service to the schools to help them fulfill their obligations as community service organizations.

PROPOSED SOLUTION 7–One student commenting on his involvement in a work experience program said "This is where it's at." For many students that is exactly where it is at and yet we have so few of the total who need such relevant and motivating experiences that ever receive them while in school. Let's face it, no school alone, no matter how excellent its curriculum can provide its students real job experience. More exploratory, general, and specific cooperative work experience programs are needed. They benefit the student, the businesses involved, and the school in many ways.

Other solutions could be proposed, but we suggest these seven "keys to involving community resources in career education" as a starting point. And we have gone way beyond what has been discussed thus far. In addition to the educator and community survey, we have developed a staff development program designed to promote the more effective and more extensive use of such resources[2] (See Figure 1). The program consists of both an in-service program or process and related supportive instructional materials. It consists of eight modules which focus on helping various staff members develop a positive attitude toward the use of community resources. It also suggests many specific strategies for locating and effectively using them in career education programs. The materials being

[2]For an illustration of A Comprehensive Career Education Staff Development Model and a list of the products currently under development at CCEM/CVTE to support its implementation, see Attachments A and B respectively.

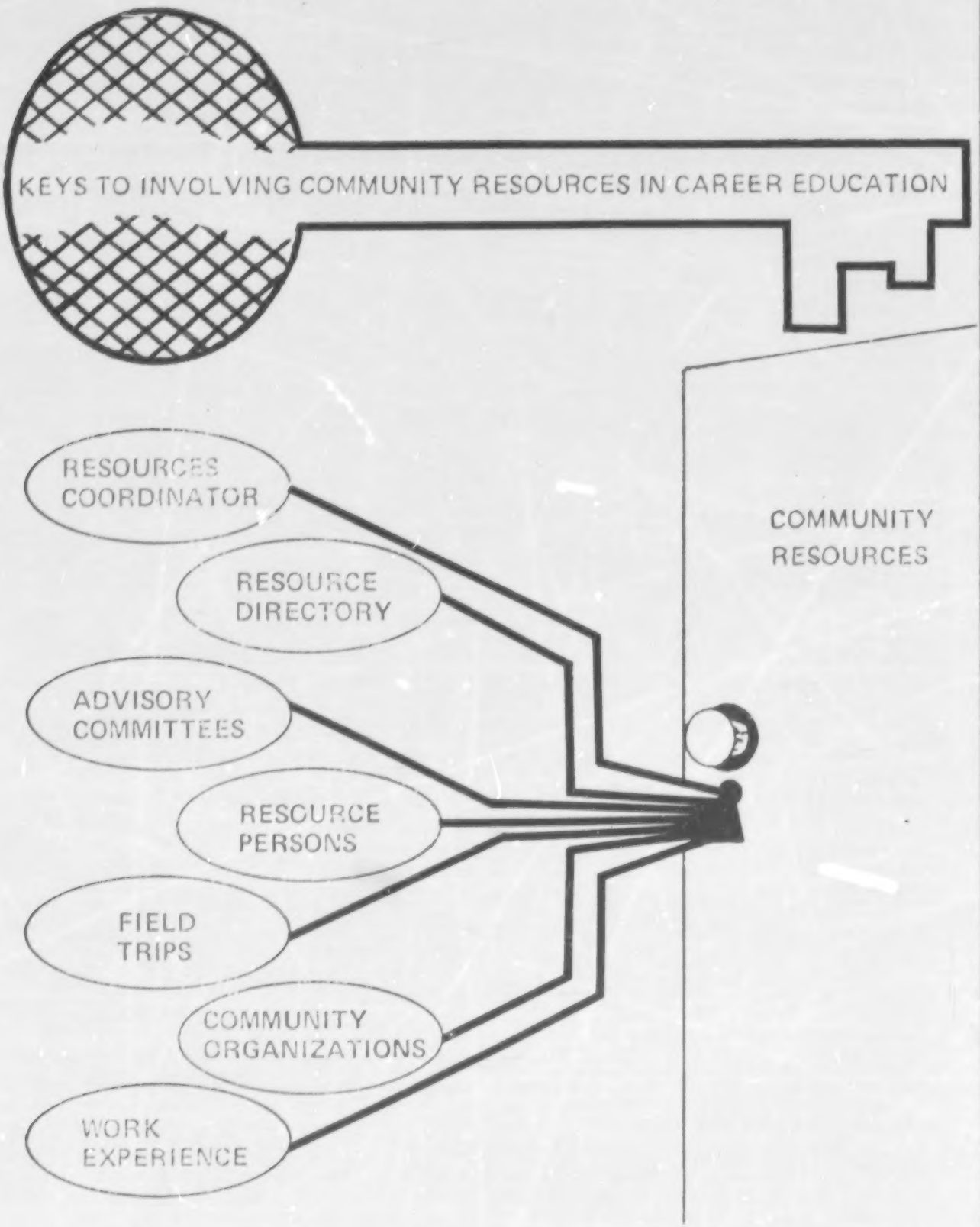

KEYS TO INVOLVING COMMUNITY RESOURCES IN CAREER EDUCATION
RESOURCES COORDINATOR
RESOURCE DIRECTORY
ADVISORY COMMITTEES
RESOURCE PERSONS
FIELD TRIPS
COMMUNITY ORGANIZATIONS
WORK EXPERIENCE
COMMUNITY RESOURCES

Figure 1

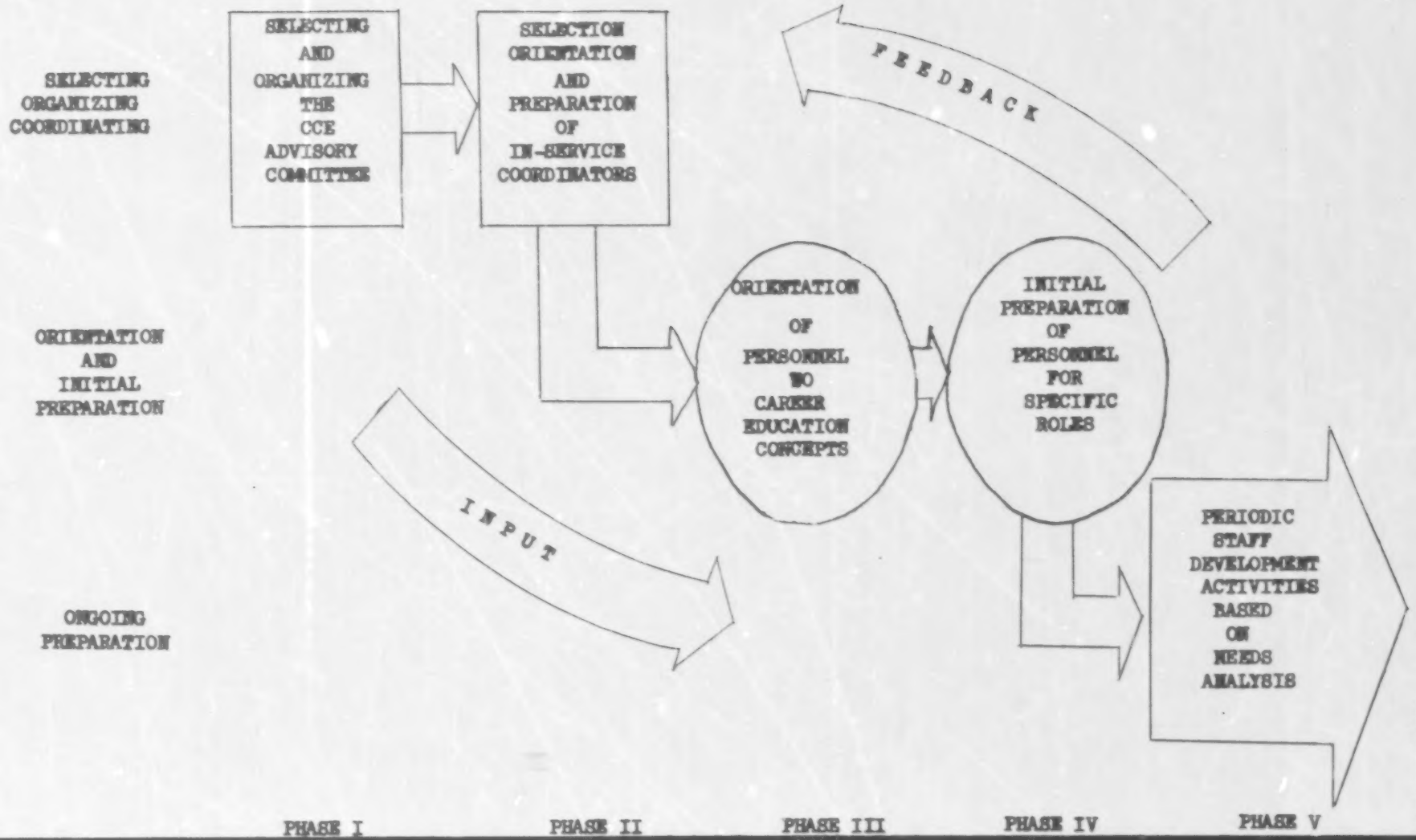
developed, and to be tested shortly, will be both printed and audiovisual (transparencies) in nature. They are designed primarily for small group instruction but parts can also be appropriately used on an individual basis. The in-service program, which would take approximately eight hours to complete in its entirety, is designed for use on a needs analysis basis. In other words, not all staff would likely participate in all modules although that option is possible.

Module topics include the following: (a) introduction, (b) needs assessment, (c) role of the resources coordinator, (d) development and use of a community resource directory, (e) community-school advisory committees, (f) involving resource persons, (g) using field trips, (h) involving community organizations and agencies, and (i) work experience programs. The program will be available sometime next year after field testing for use by administrators, in-service personnel, teachers, counselors, and others. We feel and believe that students, through expanded contacts with the community, will be the ultimate benefactors.

A couple of years ago Sam Burt issued a challenge to all educators when he said that what was needed was "a new type of professional leadership—the kind of leaders who will literally tumble the school walls down so that students and teachers will continually be in the community and the community in the schools." That is still a good challenge to leave with you. The problems of poor communication, poor coordination, as well as others will continue to inhibit the types of involvement recommended for some time. Let us accept that fact as a challenge to do something about it—something that will help all our youth. As teacher educators, you have a vitally important role in preparing our teachers of tomorrow so that they will possess the kind of leadership needed to implement viable community resource utilization programs as part of the comprehensive career education programs of tomorrow.

A CCE

Staff Development Model



Attachment A

CCEM PRODUCTS RELATED TO
THE CCE STAFF DEVELOPMENT MODEL

Advisory Committee Materials	In-service Coordinators' Materials	General Orientation to Career Education Materials	Specific Audience Role Orientation Materials	Special and Ongoing Staff Development Materials
1. Community School Advisory Committees*	1. Staff Development Guidelines for CCE	1. Self-Instructional Orientation Module	1. In-service Training Program for Administrators of Career Education Programs	1. Community Resource Utilization Program
	2. In-service Coordinators Training Program	2. General Orientation In-service Training Program (for small or large group)	2. Staff Development Program for Career Education in the Elementary School	2. Teacher Awareness Module
	3. Glossary for Staff Development		3. Curriculum Unit Installation Module	3. Attitude Change Module
	4. Abstracts of Staff Development Resources for Career Education		4. In-service Training Program for Teacher Aides in CCE	
			5. In-service Education Simulation Program for Occupational Exploration Teachers	

*This product is contained in the Community Resource Utilization Program

71/72

Attachment B

OHIO'S PLAN: CAREER EDUCATION IN-SERVICE DEVELOPMENT THROUGH PROCESS REFLECTION

By: Linda A. Keilholtz

Introduction

In Ohio, the design for the Career Education In-service Education Program has been based on the assumption that involvement and participation are necessary ingredients for successful implementation of career development objectives. By evaluating the success and failure of previous programs designed to change attitudes of educators, it was concluded that meetings that just gave directives and passed on information were ineffective; more interaction was needed. This paper hopefully depicts how in-service education can be a valuable tool in effectively communicating the goals of career education to educators.

Career Education in Ohio

Career education has been making a significant impact on many school systems in Ohio. Career education in Ohio is viewed as a life-long process that involves the following six phases:

1. A total Family Life Program within the school curriculum with special emphasis for disadvantaged people to help improve the care and motivation of preschool children and assure a more positive impact of the home on the needs of school age youth.

2. A Career Motivation Program for all youth in kindergarten through grade six that develops a positive attitude toward the world of work, inspires respect for all work, and creates a desire to be a part of the world of work.

3. A Career Orientation Program in grades seven and eight that provides all youth the opportunity to become aware of the many occupations open to those who prepare for them.

4. A Career Exploration Program in grades nine and ten, or ages fourteen and fifteen, that provides all youth with the opportunity to examine and gain firsthand experiences with several career opportunities consistent with individual interests and ability.

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5. A Career Preparation Program for youth age sixteen and above that includes:

   a. a comprehensive vocational education program that provides job skills and technical knowledge and develops work habits and attitudes in preparation for employment, and

   b. a comprehensive pre-professional education program that provides knowledge and foundations in preparation for professional education beyond high school.

6. A Career Training, Retraining, and Upgrading Program for out-of-school youth and adults that provides the opportunity throughout adulthood to train, retrain, and upgrade skills as technology changes and societal and individual needs and desires dictate.

Within this wide scope of career education is the career development program. This program extends from kindergarten through grade ten, providing students with the necessary information and developmental experiences to prepare them for making choices for vocational education or pre-professional education in grades eleven and twelve.

In FY74, twenty-four school districts are involved in the career development program. Staff members in 246 different school buildings with a total student population of over 148,000 are participating in this innovative approach to education. Career education is viewed as a priority within the division of vocational education. With appropriate funding, projections for providing career development programs for all K-ten students in Ohio have been set for 1981.

Career education began in Ohio in FY70 under the title of "A System of Vocational Education and Guidance." Although the title has been changed to that of the "Career Development Program," the goals for the program components have not. In the career motivation program at grades K-six, the purpose is to develop in all students an awareness and appreciation for all work and a desire to participate in that world of work. At grades seven-eight in the career orientation program, students are introduced to the wide variety of jobs through the use of the fifteen USOE career clusters. We believe it is important that students at this age begin comparing their individual interests with the jobs they observe in the real world. The next step of the program, career exploration at grades nine-ten, provides students with real or near real experiences in occupational areas of their choice. The program requires the student to explore at least three occupational areas with on-the-job experiences, analyzing the jobs in relation to their own interests and aptitudes.

The thematic basis and structure of the career development program is built on the following seven developmental areas: self, individual and environment, economics, world of work, education and training, employability and work adjustment skills, and decision-making. The goal is to provide students with experiences based on objectives that are tied to the mentioned developmental areas. The program objectives require that these concepts be integrated within the curriculum so students can realize the relationship between school and the outside world. If the existing curriculum must

be modified to include career development concepts, success of career education will be determined by the effectiveness of classroom teachers to modify their teaching content.

Career education is an affective approach designed to help the student make career decisions based on an understanding of self and a knowledge of the outside world. The question of career choice in this society is more than just a matter of interpreting an interest survey. Although an interest survey is a very helpful instrument and definitely has a significant role, it is the internalization of those facts that will lead the student to making a wise career decision.

The same principle applies to educators that applies to students. To effectively implement career development concepts, educators must be guided through the phases of motivation, orientation, exploration, and preparation. This process can become a very personal experience for teachers and administrators. Yet, by its very personal nature, the data become more valid. In a sense, educators internalize the process and gain the view of education as a growing system expanding to meet the needs of students in a transitional culture.

Ben M. Harris and Wailand Bessent, in their book *In-service Education: A Guide to Better Practice*, state,

> All organizational changes depend to some extent on the willingness and ability of people to change their ways of doing things. In some insitutions, such as schools, the human factors are crucial.[1]

Ohio has recognized this fact and the provision for intensive in-service education is required by each district involved in the career development program. In-service education, however, does not have a history of always being effective. Harris and Bessent also state,

> No work is so likely to met with a sigh or a groan as "in-service." Many teachers have developed an understandable distaste for the chop suey of practices and purposes often stirred together in a common pot by those who cook up in-service programs.[2]

School districts involved in the career development program have been continually encouraged to make strides to improve their programs of in-service education. At one point in our planning, however, we determined that if project districts were expected to improve their in-service techniques, we, too, must do a better job of providing in-service education for those leaders. As of June 1, 1973, we have begun a project involving the twenty-four directors of the local programs in the development

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[1]Ben M. Harris and Wailand Bessent, *In-service Education: A Guide to Better Practice*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969, p. 27.

[2]*Ibid.*, p. 15.

of an in-service package which they, in turn, can utilize to provide more meaningful experiences for personnel with whom they are involved.

In-Service Education—Change Agent

Career education has the potential of providing the students in our schools with a revitalized curriculum. If the classroom teachers are capable and willing to change their traditional methods, a design to guide that change must be established. In their book *Excellence in Education*, Morphet, Jesser, and Ludka refer to Robert Chin's strategies for effecting change: (1) rational-empirical; (2) normative-re-educative; and (3) power-coercive. The authors state:

> The first strategy (rational-empirical) is one in which attempts to effect change are based on reason and demonstration. In this approach the need is made clearly visible and understandable, and the value of the suggested change is demonstrated. The second strategy (normative-re-educative) is one in which deliberate efforts are made to help people who will be affected by a proposed change to modify or change their attitudes. In the third strategy (power-coercive) a desired change is brought about through the imposition of power. Each of these strategies is illustrative of an alternative way in which meaningful change might be brought about.[3]

To some extent, all three strategies have been utilized in implementing career education programs throughout the country. Many educational agencies have spent a great deal of time creating materials aimed for the rational person to adopt and implement. The third strategy, power-coercive, is also commonly used. Change must occur, or the funds are reallocated. Although both approaches can be used with some degree of effectiveness, the normative-re-educative strategy seems most lasting and effective. Although idealistic, it seems that in-service education can achieve the goal of changing the traditional curriculum to one that effectively incorporates the concepts of career development by changing the attitudes of educators.

Educators have long been criticized for their reluctance to change. In his book, *Leadership to Improve Schools*, Ronald C. Doll points out that educators are not approached in a manner conducive to effecting change. He states,

> Most school personnel want to meet their responsibilities as professionals and persons. Since one's personal growth and his professional growth are interrelated, programs should provide for both personal and professional experiences.[4]

Doll recommends several rules to be followed in conducting effective in-service:

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[3]Edgar L. Morphet, David L. Jesser, and Arthur P. Ludka, *Planning and Providing for Excellence in Education*. New York: Citation Press, 1972, p. 126.

[4]Ronald C. Doll, *Leadership to Improve Schools*. Worthington, Ohio: Charles A. Jones Publishing Co., 1972, p. 296.

> First, whatever is taught should have real meaning. Abstract ideas stultify; illustration supplies both life and meaning. Second, that which is taught should be practical and immediately usable. Third, time should be provided to absorb and practice learning. Fourth, the in-service activities should be scheduled at hours at which peak efficiency can be had and which satisfy the time schedules of the participants.[5]

Harris and Bessent reinforce Doll's belief by pointing out the following mistakes that often occur in in-service:

1. Failure to relate in-service program plans to genuine needs of staff participants.

2. Failure to select appropriate activities for implementing program plans.

3. Failure to implement in-service program activities with sufficient staff and others to assure effectiveness.[6]

Additional support for the potential of in-service education is stated by Stanley W. Williams, author of *New Dimensions in Supervision*. He states,

> Better involvement and increased interaction among staff will lead teachers to new perceptions about their role and their potential as professionals.[7]

Thus, in setting our goal to utilize in-service education as a prime change agent in implementing career education, it appeared important to concentrate on designing programs that would be flexible enough to adapt to the level of understanding of each audience and to build in experiences to further both the professional and personal expertise of all in-service participants.

Ohio's Plan For In-Service Education

The purpose of the project was to involve the directors of Ohio's career development programs in task-oriented in-service education experiences so that they would become effective in-service facilitators in their respective school districts. The purpose was to be accomplished with the following objectives:

1. To provide effective in-service education experiences for the participants;

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[5]*Ibid.*, p. 178.

[6]Harris and Bessent, p. 4.

[7]Stanley W. Williams, *New Dimensions in Supervision*. Scranton, Pennsylvania: Intext Educational Publishers, 1972, p. 159.

2. To aid participants in developing techniques for conducting effective in-service education;

3. To develop materials to support in-service education techniques;

4. To develop a model and materials that could be transported to other districts for in-service education in career education.

All career development program project directors, as well as state staff members, were to be involved in a series of sessions over the period of one year. The sessions were projected to vary in length of time, and the activities were to be designed to meet the objectives—both in terms of developing individual competencies as well as prototype materials. The method that was to be followed throughout the period was to be one of participation, relection and evaluation, revision of initial activity, re-evaluation, and documentation.

It was conceptualized that the project would yield the following results:

1. Capable leadership in planning and conducting effective in-service education experiences in career education.

2. In-service Manual including a Directory of Consultants and a Directory of Workshop Sites.

Since the process was to be as equally important as the resulting products, considerable effort was placed in designing effective sessions. A week-long summer workshop was planned to meet the objective of providing effective in-service education experiences for the directors. All were consulted prior to setting a data for the workshop. This procedure met one of our overriding rules—to involve participants in the decisions that would directly affect them.

In further following this guideline, all participants were assessed prior to designing the program structure. The In-service Assessment Instrument was developed by Dr. Anthony F. Gregorc, associate professor of Educational Administration and Supervision, University of Illinois and Louis S. Cicek, Ohio Career Development Project director from Willoughby-Eastlake City Schools. The instrument was designed to gather information about the predispositions of in-service participants. The authors based the development of the instrument on research that indicates that a variety of factors affect learning styles. Questions were designed to gather data on the following personality and situational variables:

1. Age

2. Sex

3. Education

4. Marital Status

5. Experience, teaching

6. Experience, non-teaching

7. Teaching Assignment

8. Social Class

9. Best Performance Time–Biorhythm

10. Behavior in Group

11. Experiences with Career Education

12. Role Perception

13. Organizational Preferences

14. Learning Style

15. Personality Style

16. Cognitive/Affective Orientation

The compiled information that was analyzed by Dr. Gregoric provided cues as to the content, methodology, and social and physical considerations that were to be taken into account.

From the twenty-four career development directors' responses, we discovered an abundance of information. Some factors discovered were that the group was predominately male with most educational backgrounds going beyond the bachelor degree level. Most preceived themselves as leaders, a distinct concern in planning a program in which the individuals were to be in participant roles. Of course, because of prior knowledge of the group, much of the data was already available. However, the use of the instrument provided participants with an understanding that the program was being designed for them as well as providing them with a tool to utilize with the many staff members in their own districts.

Efforts also began in the development of the In-service Manual. Its structure has been designed to contain the following sections:

I. Population Assessment and Program Design

II. Initiation of Career Education In-service Programs

III. Maintenance of Career Education In-service Programs

IV. Directory of Career Education Consultants

V. Directory of Career Education In-service Sites

To date sections I, IV, and V are initially completed and are being revised. The Directory of Consultants contains both Ohio and out-of-state consultants. The directory will be keyed so that upon analysis of the assessment instruments, recommendations can be made as to the appropriate consultants for the different learning styles that are indicated. The Directory of Workshop Sites contains information about school and non-school settings for career education workshops.

Sections III and IV are still in the early developmental stages. Materials related to both areas are being screened and meetings have been scheduled for the directors' review and recommendations.

Summary

Based on the belief that effective in-service education is the most long-lasting method of effecting change, Ohio career development personnel assumed the responsibility of developing a project that would aid local project directors in improving career education in-service practices. Although the project is in the developmental stage, many factors indicate that it will be successful.

A successful (as reported through evaluation) week-long workshop was conducted with the project directors in August 1973. The format of the workshop was so favorably received that an improved design of the program was utilized in another project consisting of a week-long workshop for over 130 career development program coordinators. These individuals, who assist the directors in the implementation of career education in the local districts, were assessed and a program was designed for them concentrating on experience-centered activities.

The completion of the project is targeted for June 1974. It is hoped that the program design and the materials developed will be of value to in-service leaders in Ohio and other states. Ultimately, the success of any program in education will depend on its successful implementation. Our goal is to have in-service not only bring new ideas to the classroom but to establish an effective communication base from the state department to the local project personnel. If this goal is accomplished, we believe we can expect to see some real changes, and in-service programs can be legitimately recognized as viable and effective change agents.

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STAFF DEVELOPMENT AND CAREER EDUCATION–DALLAS STYLE

By: Dwane Kingery

Staff development in the Dallas Independent School District is designed to provide for district personnel a large number of alternative ways to improve professionally and personally. The program began to offer these alternatives several years ago when the district began to include all professionals in the planning and implementation of staff development programs.

The development program for the employees of the district is a major function of the Personnel Development Department and is carried out under the supervision of the coordinator for staff development through the Dallas Teacher Education Center and its area teacher centers. The school district is divided into four quadrants, each houses a team of professionals including resource teachers as well as college/university professors whose major tasks are to respond to the in-service needs of the district and provide exemplary preservice programs. In addition, the district cooperates with the North Texas Federation of Universities to provide resident graduate instruction in the graduate center.

Every year members of the Personnel Development Department meet with representatives of each building and each major program in the district to assess the year's program and to plan the program of staff development for the coming year. As a result of this type of involvement, several major changes have occurred in the district-wide program: (1) Staff development days are now building-oriented if possible. District-wide thrusts such as career education will continue to receive high priority. (2) Several options were discontinued for a variety of reasons. (3) The mini-seminar program was established. It is an after school program covering some eighty areas. Compensatory time is granted in lieu of college credit or other reward. These mini-seminars are taught by a variety of teachers including many district employees.

The Personnel Development Department attempts to facilitate and coordinate all in-service activities for the district. In addition, the department maintains a cooperative program of preservice preparation with seven colleges and universities through the Teacher Education Center.

Dallas was fortunate that its school superintendent, Dr. Nolan Estes, took the lead to establish the cooperative program known as the Dallas Teacher Education Center. This unique project follows rather closely the program described in the publication *Teachers for the Real World* by the American Association of Colleges for Teacher Education. The center has become the training arm of the district and represents the vehicle by which continuous improvement can be provided throughout the career of each employee of the district.

Dwane Kingery, Assistant Superintendent, Dallas Independent School District, Dallas, Texas.

Career education in Dallas has followed a similar rise in priority. The importance of this program in the district is evidenced by the appointment of an assistant superintendent for career education and the establishment of a model program in career education. This model program is centered in Skyline High School and combines the Career Development Center with the traditional academic program. Such an environment provides a rich opportunity for the major objectives of a special staff development program.

Obviously, the staff development program of the Career Development Center follows the district guidelines and keeps in close contact with the district-wide program. Its specific objectives are (1) to develop a staff informed about the concepts of career education, (2) to assist the district staff to develop skills of dealing with people, (3) to develop competencies in curriculum development focused on career education, and (4) to design an evaluation program which will assist in improving the staff development activities.

The thrusts of the Career Education Staff Development Program are carried out in many ways. The director of this program meets regularly with building faculties to assist in providing information and to develop curricular efforts in career education. Mini-seminars in career education are held each week. One of these seminars is held in conjunction with an area teacher center and is for paraprofessionals employed in the district.

In Skyline High School pilot projects as well as specific efforts are directed toward establishing effective relationships between the twenty-eight career development clusters and the regular secondary curriculum. These activities provide the district as well as the state and nation with guidelines for the future. The director of staff development in career education is housed in Skyline High School thereby facilitating these efforts.

Just this year the district established a Career Education Materials Center in an area teacher center. A program facilitator—elementary career education, has become a member of the area teacher center team in order to facilitate the objectives previously identified. Basically, the career education program is joining forces with the teacher center and the operations division of the district to effectively bring about the needed attention to career education. By serving the needs of teachers through providing materials and enhancing skills, the future of career education in the Dallas Independent School District is even brighter.

Current efforts to provide staff development programs through the teacher center concept are creating new and exciting partnerships. These cooperative efforts involve area colleges and universities, neighboring school districts, regional educational service centers, and the Texas Education Agency. Guidelines are under development to describe the management techniques, the strengths and weaknesses, and future potential. Overall, this is an interesting and challenging venture. Surely it will enable professionals to improve the programs of the future.

A REPORT ON A COURSE TAUGHT VIA MODERN TECHNOLOGY FOR THE UNIVERSITY OF WISCONSIN-MADISON

By: Robert A. Ristau

Introduction

The old-fashioned, party-line telephone concept is not dead. At least not in terms of its application to "new technology" in teacher education. Why not listen in on your neighbor's conversation if it can be a mutual learning experience? Why not use a multiple hook-up telephone system to communicate ideas and share experiences? Such is the case with the Educational Telephone Network (ETN), a communication system of the Extension Division of the University of Wisconsin. It was my good fortune to have the opportunity to teach teachers about career education using such modern technology, and this report is about the course that was taught as well as the technology involved in its delivery.

The Course

A graduate course in career education to be taught via ETN was conceived and developed for teachers in Wisconsin. It aimed at meeting a need expressed by educators for information about career education and its implementation. Initially it was designed to focus on grades seven through twelve. Following its being offered and evaluated during the first semester of 1972-73, it was expanded in scope to cover all grade levels and offered again as "The Principles and Practices of Career Education."

The course dealt with the application of career education to whatever educational setting the student faced. It provided for a foundation of basic understandings of career education and a practical, hands-on experience with a usable project. A statement of each individual's perceived role in career education preceded the development of a project.

Many indicators point to the course as being a successful one. Excerpts from a report on the evaluation of the first-semester course (see pages 4 to 20) provide additional detail on the course itself as well as insights into student feedback. An examination of projects developed during the course suggest a grasp of career education concepts and an ability to translate a knowledge of career education into teaching-learning situations.

My experience with the course suggests that the following are among the reasons for its effectiveness.

Robert A. Ristau, Professor and Head, Business Education Department, Eastern Michigan University, Ypsilanti, Michigan.

1. The student was provided with the necessary philosophical rationale for career education that undergirds the career education thrust. Teachers too often want to get "on with it" and "into it" without first knowing really what it is and why they should be involved.

2. A basic understanding of career development theory as it relates to potential teaching-learning practices was fostered. The "teachable moment" was made an important concept in terms of relating to the career development process through which youth progress. Career development theory was presented as more than just background information; it was seen as central to many career education activities.

3. Each student was forced to state in writing, early in the course, his or her perceived role in career education. This task of role definition was a real challenge to most; for some it was a task that continued throughout and beyond the course itself. The definition activity caused introspection and thought regarding what career education was really all about and what each individual's responsibility encompassed.

4. General philosophies, theories, and models were treated before presenting applications of career education. The applications were involved with components and major segments of activity, such as self-concept, community involvement, career awareness, career exploration, career preparation, and career guidance and placement.

5. The student identified an area of interest or need and then developed a project (individual or group) that was usable in terms of implementing some aspect of career education in a local school or school district.

If in-service in career education is to be provided to professional educators, it seems to me that each of the above ought to be accomplished to at least some extent. Career education has the potential of reforming many educational practices; it can enhance the teaching-learning process and provide an exciting new challenge to teachers and students alike. It also has the potential of being a major boondoggle and for providing only a shallow involvement in a new educational arena. Given an understanding of what must be done, why it should be done, and how it can be done, educators and students will find career education—whatever the level and scope of involvement—to be a positive and rewarding program.

The Technology

The need for career education in-service is generally immediate and widespread. Educators in cities, villages, and hamlets express a desire for in-service help. For instance, the state of Michigan estimates that 10,000 teachers need help immediately if career education programs are to be successfully implemented. The state of Wisconsin in 1970 carried the career education message into virtually every community and school district though its dissemination of a *Guide For Integrating Career Concepts Into The K-12 Curriculum.*

How can teachers be effectively reached in large numbers when there is a limited number of qualified teacher educators and time is of the essence? One answer is provided by the University of Wisconsin Extension Division's Educational Telephone Network. The "ETN," as it is affectionately referred to, was developed in 1965 as a communication system that would help expand educational opportunity at minimal cost. The system was described by Professor Harland Samson (*The Balance Sheet*, May 1973, page 340) as follows: "Instead of linking individual homes, it links courthouses, libraries, hospitals, and university centers providing an instant and personalized educational channel for the entire state. All ETN locations are on the same network and whatever is said at one location can be heard by all the others.

All listening stations on the network have similar equipment consisting of a loudspeaker and a telephone handset. Participants hear the programs through the loudspeaker and may respond or ask a question by merely lifting the telephone handset and speaking into it.

Lectures, discussions, and other instructional presentations are transmitted to ETN classrooms throughout the state. Because of the instant two-way communication aspect of the ETN system, students can respond to the instructor or to the students at other ETN listening stations.

ETN has grown from a pilot project with eighteen listening stations and one weekly program to a statewide system of over 170 listening locations and approximately thirty weekly programs.

The broadcasts or programs are developed and initiated by the professor. Generally programmed for seventy-five to ninety minutes, the format of the program is left to the professor and the resources at his/her command. The media itself is in the hands of skilled technicians who work out of a central facility on the Madison campus. Voice tone, volume control, and other audio signals are controlled and monitored in the Madison studios.

Long-distance telephone calls, by which experts can be brought into the class for presentations and discussions, are placed by the technicians and automatically plugged into the class at a predetermined time. A master tape recording is made of all programs. (The tapes proved to be a useful by-product and resulted in a series of cassette tapes on career education. These listening tapes were made available to students and used to make up classes missed, to relisten to programs that were of special interest, to augment independent study, and to help conduct local in-service programs with other teachers.) But back to the media itself.

An interesting feature of the ETN is that the professor can initiate a class from any one of many listening stations (classrooms) around the state or from the central facility on the Madison campus. A portable headset permits the professor to walk about the room more freely and yet be heard clearly over ETN at all times. The professor also can teach the class from any telephone that might be available so long as the technicians in Madison can plug him into the system. In one instance, for example, it was necessary for me to be involved in a conference in Milwaukee at the time when my class was to meet. At approximately ten minutes before the class was to begin, I left the conference banquet and entered an available office. A few minutes later, I received a long-distance phone call from the Madison control center and was on the network. At 6:30 sharp, the class began and I lectured, introduced our guest speaker, and lead discussions from that office.

On normal evenings, the professor travels around the state and initiates the class in front of the different groups. This procedure provides a "live audience" with whom the professor can react while the other students listen in and communicate via the telephone. Visuals, converted into Kodachrome slides, are sent to each listening station and viewed by each local group on cue from the professor. Co nmunication can be enhanced and facilitated in various ways by the professor.

The ETN has proven capable of being an effective delivery system. As with most educational technology, it is a teaching tool that must be employed skillfully by those who use it. By capitalizing on the strength of the technology and minimizing its weaknesses, an effective learning experience can be provided. Excerpts from the evaluation report, pages 13 to 17, reveal some valuable insight through student responses to learning via ETN.

Student reactions to ETN can possibly best be summed up by stating that they generally see it as a viable option to the traditional class. Students appreciate the opportunity to do university-level course work in their own backyards. They find within the ETN experience many things that compensate for the lack of a high level of personal interaction with the professor. The professor must rely on local groups to provide some leadership and person-to-person interaction. There must also be a willingness for the professor to sacrifice some of the desired close personal interaction with students. The experience, in totality, can be quite satisfying. The ETN appears to be a delivery system worthy of investigation by those who wish to find new ways of bringing needed programs of education to a greater number of people.

Excerpts From The Evaluation Report

The career education course and the ETN as a delivery system were evaluated during the first semester of 1972-73. The evaluation was presented as a report of the Center for Studies in Vocational and Technical Education of the University of Wisconsin-Madison. (CSVTE 73-2, "An Evaluation Of The Educational Telephone Network As An Instructional Delivery System For A Graduate Course In Career Education," March 1, 1973.) The content of that report provides additional insight into both the course and the experience of learning via ETN. The following excerpts from that report are presented without additional comment. The reader will gain valuable insights from a review of the comments and data it contains.

Background Information

During the fall semester of the 1972-73 school year, a three-credit course, "Career Education – Grades 7-12," was taught for the University of Wisconsin-Madison, by Dr. Robert A. Ristau, using the Educational Telephone Network (ETN) statewide facilities. The course was approved by the Department of Curriculum and Instruction (C & I) as a University Extension offering under the designation "C & I 272-630, Workshop in School Program Improvement."

Seventeen ETN locations were preselected by the Center for Extension Programs in Education and approved by the C & I faculty. Interface sessions, that brought several local ETN groups together for the ETN class presentation and a post-class discussion with the instructor, were held throughout the semester. Each student was scheduled to be involved in at least two interface sessions.

The instructor developed the course and conducted the evaluation as part of his activities in the U.W. Center for Studies in Vocational and Technical Education. Valuable assistance was provided by an advisory committee, a project assistant, and several consultants. The advisory committee included representatives of school districts involved in career education, members of the state education agencies, and teacher education personnel from the Madison Campus. The advisory committee helped formulate course content and evaluation procedures.

Evaluation Rationale And Procedures

The design of the evaluation attempted to analyze student reaction to the format and content of the course as well as the experience of learning via ETN. The nature of the evaluation, then, was both formative and summative. To the extent that it would be possible to do so, changes in attitudes and perceived behaviors were measured. The following were utilized as part of the attempt to accomplish the desired evaluation:

1. A weekly feedback form by those persons who were in charge of each local ETN group. This response form reported the local group leader's perception of a group's reaction and response to each ETN session. The local group leaders also rated the ETN in terms of its effectiveness as a delivery system.

2. An instrument identified as "Evaluation Form A" was designed to solicit responses from selected students at periodic intervals throughout the course. Evaluation Form A was administered at the conclusion of eight ETN sessions. Local group leaders administered the evaluation instrument and mailed the answer sheets back to the Center. Responses were electronically processed by the Wisconsin Testing Service with data subsequently provided to the instructor and project assistant for analysis.

3. The summative evaluation was accomplished with an instrument entitled "Evaluation Form B." The advisory committee provided a substantial input into the content of this instrument which was administered to all students at the final class session.

4. An opinionnaire was developed for use in this course. The opinionnaire was designed to determine basic attitudes and perceptions of career education and was administered as a pretest and post-test instrument. Students' responses were recorded on electronic scoring sheets and tabulated by the Wisconsin Testing Service.

Validation Of The Instruments

The opinionnaire was developed with the assistance of the two consultants. Opinionnaires developed under research conditions by other universities and school districts were used to formulate a shortened form. Items that appeared to be discriminating were used in its construction. Some items unique to the needs of this evaluation were also included.

Most of the questions included on the evaluation forms were selected from a bank of items made available through the offices of Mr. Lorne Parker, associate director of the Controlled Communications Systems. Known as the Mermac program, these items had been tested and validated and were of the forced-choice variety. Several questions and concerns identified by the advisory committee also were included.

Local Group Leaders And Course Materials

Students at an ETN location were under the supervision and leadership of a local group leader who was referred to as a "director of study." The directors of study were selected by the professor based in part on their individual involvement in career education and their demonstrated ability in teaching and leadership. All directors of study met with the professor at an in-service session conducted in Madison prior to the beginning of the course. In addition, the professor had frequent contacts with them including individual conferences during the semester.

Materials used in the course included a syllabus that identified sixteen topics, student-centered objectives, inquiry questions, and required readings for each session. A Book of Readings presented scholarly papers as required readings for each topic. In addition, a comprehensive bibliography of over 200 references in career education available through the Center was compiled and made available to all students.

The University Extension Library distributed a set of reading materials to each director of study. The books provided at each ETN location contained supplementary readings for the enrolled students.

Career Education, Perspective and Promise, by Keith Goldhammer and Robert Taylor, was selected as the required textbook. The textbook was selected from among several that were reviewed. It appeared to be the most scholarly in its presentation and one that would challenge students to think about critical philosophical as well as practical aspects of career education.

Other appropriate materials were mimeographed and made available to students during the semester. Several resource persons provided papers or materials which supplemented their presentation.

TABLE II

NUMBER AND PERCENT OF ENROLLEES WHO WORK AT VARIOUS GRADE LEVELS

GRADE LEVEL	N	%
Seventh	3	2
Eighth	7	4
Ninth	6	4
Tenth	13	8
Eleventh	8	5
Twelfth	30	18
High School	59	36
Junior High School	13	8
Junior & Senior High School	11	7
K-12 Administrators	10	6
Elementary	3	2
Other	0	0
Total	163	100

TABLE III

NUMBER AND PERCENT OF ENROLLEES DESIGNATING AREAS AS THEIR SPECIALITIES

AREA	N	%
Academic	30	18
Vocational	76	47
General Counseling	37	23
Administration	9	6
Curriculum	4	2
Other Specialities (Speech, etc.)	7	4
Total	163	100

A majority of the students enrolled expressed professional advancement or general interest in career education as the principal reason for taking the course. (See Table IV.) Almost all enrolled students indicated some familiarity with career education with a very small number indicating a great

Resource People

A unique and valuable aspect in the utilization of the ETN facilities as an instructional delivery system is the capability of acquiring resource people who can be plugged in to the ETN network. Thirteen resource persons of state or national prominence spoke with students via long-distance telephone or from various ETN locations around the state.

The Clientele

A demographic questionnaire was used to obtain data on students enrolled. The information was used to help guide the nature of the instruction during the semester as well as to provide data for evaluation purposes.

A total of 174 students enrolled. Of the initial enrollees, five dropped the course within the first few weeks and five enrolled as audits. Of the 164 who enrolled for credit, only five chose undergraduate credit.

The demographic questionnaire was administered during the second class session. A total of 163 students completed the form. An analysis of data revealed that a majority of those enrolled were teachers with the next largest group being counselors. (See Table I.) Almost three-fourths of those enrolled were employed in grades nine-twelve. Three elementary teachers were among the enrollees. (See Table II.) Almost half of the students enrolled indicated vocational education as their area of specialty, with approximately one-fourth indicating general counseling as their area of specialty and approximately one-fifth indicating academic subjects as their area of specialty. (See Table III.)

TABLE I

NUMBER AND PERCENT OF ENROLLEES IN VARIOUS EDUCATIONAL ROLES

EDUCATIONAL ROLE	N	%
Principal	4	3
Counselor	37	23
Teacher	90	55
LVEC	17	10
Assistant Principals	5	3
Other Administrators	10	6
Other	0	0
Total	163	100

TABLE IV

INDICATED REASONS FOR ENROLLING IN THE COURSE

REASONS	N	%
General Interest	23	14
Graduate Program	13	8
Professional Advancement	66	41
Development of Career Education Programs	10	6
LVEC Certification	3	2
Other	0	0
No Response	48	29
Total	163	100

deal of understanding of career education. (See Table V.) The majority of the students indicated their highest expectation was that of learning what they could do as individuals in a career education program. There also was an expressed desire to develop a better understanding of career education concepts. (See Table VI.)

TABLE V

INDICATED DEGREE OF UNDERSTANDING OF CAREER EDUCATION BY STUDENTS AT THE BEGINNING OF THE COURSE

DEGREE OF UNDERSTANDING CAREER EDUCATION	N	%
None	6	4
Little	39	23
Some	112	69
Great	6	4
Total	163	100

Other data collected indicated that the range of experience in education was from zero to twenty-one years. Respondents averaged seven years in classroom teaching, five years in guidance and counseling, and four years in administration.

TABLE VI

EXPRESSED EXPECTATIONS OF STUDENTS

HIGHEST PRIORITY EXPECTATION HELD FOR THE CLASS	N	%
Better Understanding of Career Education Concepts	48	29
Learn What I Can Do for Career Education	95	58
Learn What Others Are Doing for Career Education	8	5
Learn About Design and Implementation of Career Education	4	3
Others	2	1
No Response	6	4
Total	163	100

Respondents identified professional journals, fellow teachers, and the Wisconsin Department of Public Instruction as their major sources of information on career education. Only 13 percent indicated the state university system as the major source of such information, and workshops provided such information for 4 percent of those responding.

In summary, the course appeared to attract a variety of teachers, counselors, and administrators. It appears to the evaluator that the 163 students enrolled represented a cross section of personnel in education as well as a variety of school districts throughout Wisconsin.

Course Evaluation By Enrollees

Scope of Evaluation

An examination of Evaluation Form A shows that thirty response items were provided. Responses were obtained from students at ETN stations on a rotating system based on a predetermined schedule.

The primary value of this phase of the evaluation was formative and it guided teaching/learning activity during the semester. A large volume of data resulted from the administration of this instrument; only selected items are presented in the body of this report.

Evaluation Of Course Content

Students consistently indicated that the content as presented in the sessions evaluated was adequately discussed. (See Table VII.) An exception is noted with respect to session six. Seventy-two

TABLE VII

"THE CONTENT PRESENTED WAS ADEQUATELY DISCUSSED."[1]

SESSION	N	Percent Responding SA	A	D	SD
3	28	14.3	46.4	35.7	3.6
4	37	24.3	54.1	21.6	0.0
5	22	0.0	86.4	13.6	0.0
6	18	0.0	27.8	66.7	5.6
10	41	22.0	63.4	14.6	0.0
11	17	17.6	76.5	5.9	0.0
12	34	11.5	82.6	5.9	0.0
13	37	24.3	70.3	5.4	0.0

percent of the respondents indicated a disagree or strongly disagree response to the content and discussion for that particular session. Upon examination of other data provided by this instrument, it was noted that the majority of respondents also felt that for session six the subject matter was not adequately presented, they did not feel encouraged to take an active part in the program, and the program was not well paced within the allotted time. There was further expression that more time should have been devoted to outside resource people in session six. The general response to course content, however, was positive and appeared to be appropriate for the students enrolled.

The ETN As An Instructional Medium

The majority of the students consistently indicated in response to question five that the Educational Telephone Network was adequate for communicating the subject matter. (See Table VIII.) The strongly agree and agree responses ranged from a total of 77 percent to 56 percent. Strongly disagree responses ranged from 0 percent to 14 percent.

In response to question nine, a substantial majority of students consistently rated the mechanical quality of the ETN as satisfactory. For sessions eleven and thirteen, 100 percent of the respondents answered strongly agree or agree on this point.

The physical setting of the ETN locations was observed by the instructor to be a problem in some areas. However, in response to question fourteen, students indicated that the physical setting of their ETN location was conducive to good learning. The highest total of strongly agree and agree responses was 100 percent for session eleven and the low was 65 percent for session three.

[1]Responses to question 1, Evaluation Form A.

TABLE VIII

"THE EDUCATIONAL TELEPHONE NETWORK (ETN) SEEMED TO BE ADEQUATE FOR COMMUNICATING THE TYPE OF SUBJECT MATTER PRESENTED."[2]

SESSION	N	Percent Responding SA	A	D	SD
3	28	7.1	53.6	25.0	14.3
4	37	32.4	54.1	10.8	2.7
5	22	36.4	36.4	18.2	9.1
6	18	5.6	50.0	38.9	5.6
10	41	14.6	41.5	36.6	7.3
11	17	23.5	41.2	35.3	0.0
12	34	14.7	58.0	23.5	2.0
13	37	8.1	56.8	27.0	8.1

Instructional Aids

Students consistently indicated that required readings contributed to their understandings of the lessons. The summary of responses to question seventeen is shown in Table IX.

TABLE IX

"THE REQUIRED READING ASSIGNMENTS CONTRIBUTED TO MY UNDERSTANDING OF THE TOPICS IN THIS LESSON."[3]

SESSION	N	Percent Responding SA	A	D	SD
3	28	39.3	53.6	7.1	0.0
4	37	21.6	59.5	16.2	0.0
5	22	31.8	63.6	4.5	0.0
6	18	16.7	72.2	11.1	0.0
10	41	34.1	63.4	2.4	0.0
11	17	52.9	47.1	0.0	0.0
12	34	38.2	55.8	5.9	0.0
13	37	16.2	73.0	10.8	0.0

[2]Responses to question 5, Evaluation Form A.

[3]Response to question 17, Evaluation Form A.

The Book of Readings provided was consistently rated higher than the textbook readings; however, both rated high. An instructional technique that provided for a critique and an ETN-wide discussion of required readings was rated low by students. In several instances, a majority of students disagreed or strongly disagreed that the class exercise of critiquing the required readings was meaningful. Subsequently, the critique of required readings exercise was discontinued.

A total of sixty-nine colored slides were developed for use during the ETN classes. Charts, diagrams, and other significant visuals were included in the slide presentations. Slides were shown in each ETN location on cue from the instructor. Students generally indicated that the visual materials helped clarify points being made in the presentation. Those ETN sessions that elicited a low agreement response were those in which few or no visuals were used. When used, responses to visuals were consistently high.

Student Involvement

One of the expressed concerns with respect to the utilization of the ETN facility is the extent to which students would take an active part in the class activity. In response to question eight, a majority of students consistently indicated they felt encouraged to take an active part. Responses ranged from a high of 82 percent of strongly agree and agree responses (Session eleven) to a low of 33 percent of strongly agree and agree responses (Session six). (See Table X.)

TABLE X

"I FELT ENCOURAGED TO TAKE AN ACTIVE PART IN THE PROGRAM."[4]

SESSION	N	Percent Responding SA	A	D	SD
3	28	0.0	64.3	28.6	7.1
4	37	24.3	48.6	21.6	5.4
5	22	4.5	63.6	31.8	0.0
6	18	0.0	33.3	55.6	11.1
10	41	4.9	56.1	31.7	7.3
11	17	29.4	52.9	17.6	0.0
12	34	5.9	53.8	31.5	8.7
13	37	13.5	59.5	24.3	2.7

[4]Responses to question 8, Evaluation Form A.

A majority of students for every ETN session indicated that the question-and-answer session was beneficial to them. Responses to this question ranged from a high of 92 percent of strongly agree and agree answers (Session twelve) to a low of 60 percent of strongly agree and agree responses (Session three).

Other

There was a general expression of disagreement with the following two questions: "Too much material was presented within the short period of time," and "I had questions but I did not have the opportunity to ask them." The negative responses to those questions indicate that students generally felt that the material presented was adequate for the time period provided. Expressed feeling that adequate time was provided for students to ask questions further reflects a satisfaction with involvement in class sessions.

More than 90 percent of the students for each session indicated a strongly agree or agree answer to the question "The director of study with the group created a warm, friendly atmosphere conducive to learning." There was a very high degree of consensus that the instructor showed respect for differing viewpoints expressed by students and that he allowed for alternatives to the solutions of problems.

Course Evaluation By Directors Of Study

As previously noted, directors of study used feedback forms to provide a weekly response to the ETN sessions. Their rating of the general effectiveness of the ETN sessions tended to increase as the semester progressed. Session two was rated lowest with a quantified rating of 3.20. Sessions twelve and thirteen were rated highest with quantified ratings of 4.17 and 4.20 respectively.

In rating their group's response to individual sessions, directors of study again showed a general trend toward greater effectiveness as the semester moved along. Sessions thirteen and eight both earned a high quantified score of 4.0.

The rating of the ETN as a delivery system was consistently high in this phase of the evaluation. Quantified scores of 4.0 or more were indicated for sessions six, seven, nine, ten, and twelve. The ETN as an instructional delivery system was perceived to be very acceptable by the directors of study.

A valuable aspect of the evaluation was the narrative comments provided by the directors of study. Many suggestions relative to the conduct of the class were received. Some opinions expressed were contrary to those held by the instructor, but each was given serious consideration. Expressed desires for less theoretical and more pragmatic discussions were received; the professor was concerned that the course have a balance of both emphases. Suggestions that class sessions should be more instructor-centered were accommodated as the semester progressed. The close interaction of the directors of study and the instructor was seen as an important part of the semester's activity.

The Summative Evaluation

The final evaluation instrument was administered to the total ETN class at the last class session. A total of 159 answer sheets were received and processed by the Wisconsin Testing Service. An analysis of the data follows.

In rating this course in comparison with traditionally taught extension courses, 45 percent of the students rated this course as about the same, better, or superior. Fifteen percent had not taken other extension courses, and 3 percent omitted this question. Thirty percent felt the course was not as good and 6 percent felt it to be quite inferior.

Sixty-five percent of the students indicated that they would again enroll in this course as presented this semester, and 34 percent indicated that they would not. Twenty-six percent of those responding "no" (about fourteen students) indicated that they were dissatisfied with the ETN system.

Respondents generally indicated that the individual student project, the Book of Readings, and the ETN local group discussions were the most helpful activities in the course.

Seventy-seven percent of the respondents indicated that they felt that the University of Wisconsin should offer other graduate courses using ETN facilities. Twenty percent indicated that they did not feel that way, and 2 percent omitted the question.

Providing facilities that would better accommodate local discussion and group interaction at the ETN location and including more telephones for group use were the most frequently indicated as desired improvements in ETN facilities.

Eighty-seven percent of the respondents perceived a personal, positive change of attitude towards career education as a result of the course. Eighty-eight percent also indicated a perceived personal behavior change with respect to directing or influencing student learning activities as a result of taking this course. Although such responses are only one indicator of change, the high degree of positive responses to those questions appears to be significant.

In ranking the best features of the course, the students indicated the amount and variety of information provided on career education as being the best feature. The instructor, guest lectures by resource people, the readings, and local group discussions were ranked in that order as the next best features of the course.

Seventy-nine percent of the respondents indicated that the class sessions were more meaningful when the instructor was present. Eighteen percent felt that they were not more meaningful, and 1 percent were unsure.

Eighty-one percent of the respondents indicated that resources that they required were available. Additional resources that were suggested by some respondents included improved library facilities and more copies of the Wisconsin Career Development Guide. However, only 16 percent of the respondents felt that they lacked the resources needed.

Fifty-three percent of the respondents indicated that they would be more likely to enroll in an on-campus course as a result of having participated in this ETN offering through the Extension Division.

General Observations By Instructor

Although personal contacts with students were infrequent compared with traditional on-campus courses, considerable feedback and interaction did take place. Letters, phone calls, and a special communication device developed for this course (an ETN-O-GRAM) facilitated communication with those involved in the course. The utilization of local group leaders who interacted frequently with the instructor seemed to enhance the effectiveness of the course.

The quality of work that was done by the students was excellent. Objective examinations administered to measure mastery of cognitive learning indicated a bell-shaped curve among the total class population. No one ETN location had any disproportionate number of high or low grades. The overall level of achievement appeared to be good.

Projects developed were conceived to accommodate unique needs of the individuals enrolled. The completed projects appear to at least equal the quality of those done by students in on-campus courses.

A generally consistent comment expressed by students during interface sessions was that the ETN learning experience was a very acceptable alternative. The first choice, that of having a regular class with the instructor present each time, was seen as desirable but not always practical. Students generally expressed pleasure at having the opportunity to enroll in a graduate course of this nature and saw the ETN as a viable instructional delivery system.

Unsolicited Comments By Students

A variety of unsolicited comments and reactions were received from students. Sixteen students wrote notes or letters in which they expressed pleasure with the course. Some of those comments are presented in the following paragraphs.

"I enjoyed your class. Would rather have had a face-to-face situation, but I understand. Please keep me in mind if you start anything on campus this summer. Thanks so much for your time."

"I would like to commend you for the caliber of the course you taught. It has helped me a great deal in my situation. One suggestion I have would be to eliminate much of the on-the-air discussion and replace it with meaningful resource speakers and your own comments. I would gladly participate in the discussion before or after the class and leave the air time for the above purposes."

"We wish to express our thanks and appreciation for your letter of November 21, 1972. We intend to keep your letter with your suggestions, and if we are able to continue our study next year we'll certainly heed your suggestions as we proceed."

"I did enjoy the course. I hope someday to take a course from you on a face-to-face basis. There is room for much stimulating discussion about career education. Thank you for your patience."

"Your course has been a rewarding experience; it certainly has changed my attitudes and has caused me to think a lot about the purposes of education."

"A personal remark about the course in career education. I feel that this course has opened a whole new outlook for me in approaching my students in a way in which I can really aid them to find their true worth as a whole person, even at the age where they are still trying to find themselves. I've searched for many years for this kind of an approach and have never really developed the idea, because I've never had the time or guidance to fulfill this desire. I do appreciate the course and the work that has gone into the preparation of the materials and generous offering of ideas and answers to many questions. I am sure that I will be able to make students aware of many new views on their path of discovery."

"It should be said that at the beginning of the course I was one of those who indicated that I knew a great deal about career education. It should now be said that as a matter of fact, I knew very little, even though I had participated in a two-week in-service workshop. Your course has been a valuable experience and has opened many paths for examination and study. Thank you again for offering this course to us."

"I especially appreciate listening to the fine resource persons. Many of us classroom teachers do not get a chance to go to national conventions and meet famous people. Talking to them in this class was very meaningful."

The instructor was invited to visit a classroom in the Oconomowoc Junior High School to observe two of the teachers using a project that was developed in this course. The instructor also was invited to participate in in-service sessions at several schools represented in the class.

One student, several weeks after the course ended, wrote the following: "Although you rated our project as only being worth a B, I would like to indicate that it is a real smash hit here in our school district. The superintendent and the board of education have responded very positively to it. It is being used as a model for career education activity in our district. I believe that it will lead us into some desirable and meaningful activities. Thanks again for offering this course in our area. Too often those of us in this part of the state feel left out of programs offered by the university. Best wishes to you."

Attitudinal Changes Among Enrollees

The career education opinionnaire was administered twice to all enrollees, once at the beginning of the course and again at the end. An analysis of responses indicates several significant shifts during the semester with respect to attitudes and perceptions of career education. The most significant changes occurred with respect to familiarity with Wisconsin's sixteen career development concepts. Other areas in which there were significant changes, based on a comparison of responses, was with respect to the perception of career education as being more than another name for vocational education and the perception that career education is for all students. There was also a strong feeling that teachers should learn techniques for developing local career education resource materials. Table XI lists points on which significant change occurred with respect to student attitudes and opinions.

A high degree of congruence with respect to eight statements on career education are presented in Table XII. The high degree of agreement on these eight basic statements is significant to the extent that these reflect important objectives and concepts inherent in career education.

Conclusions

1. The ETN can be an effective instructional delivery system in serving students at the graduate level.

2. Students can be motivated to learn and achieve well using teaching techniques adapted to the ETN system.

3. Utilization of the ETN as an instructional delivery system places very heavy time demands upon the instructor, especially in terms of preparing written communications, organizing and developing materials, distributing class materials throughout the state, and traveling to ETN locations.

4. Instructors utilizing the ETN facilities should meet on a face-to-face basis with their students as frequently as possible.

5. A variety of communication devices should be utilized to encourage and facilitate two-way communication between the instructor and students with prompt and timely responses provided by the instructor.

6. The effective support and assistance of the staff of the ETN-SCA and the Center for Extension Programs in Education is an important part of the factors that lead to successful use of the ETN.

7. The use of outside resource people, particularly those with a national reputation, is a compensating factor helping to lead to favorable student reaction to the ETN.

TABLE XI

SIGNIFICANT[5] CHANGES IN RESPONSES TO CAREER EDUCATION'S OPINIONNAIRE BASED ON PRE-POST OPINIONNAIRE (N=163)

ITEM	DEGREE OF CHANGE IN PERCENTAGES	NATURE OF THE STATEMENT
1	SA + 48, A + 11	Familiarity with Wisconsin's sixteen concepts
3	SA + 12, A + 17	Need to learn techniques for developing local career education resource materials
9	SA + 15	Career education is merging of general and vocational education
12	SA + 15	Student's career choice will affect future life style
13	SD + 33	Career education is another name for vocational education
15	SA + 15	Students should be made aware of employer expectation
18	SA + 19	Teachers should know occupations requiring knowledge and skill of their subjects
19	SA + 22	Students should make tentative career choices while in school
22	SA + 24	Career education is for all students including those going on to further education
24	SA + 19	Public schools should provide placement services

[5]An increase of 15 percent or more Strongly Agree (SA) or Agree (A) in responses based on comparison of pre/post responses.

TABLE XII

VERY HIGH AGREEMENT[6] ITEMS BASED ON POST-OPINIONNAIRE RESPONSES TO CAREER EDUCATION OPINIONNAIRE: (N=163)

ITEM	PERCENT RESPONDING STRONGLY AGREE	NATURE OF STATEMENT
2	69	Students should learn how to get, hold and advance on a job
5	73	Help students develop appreciation for all work
8	70	Employment trends part of school program
12	69	Career choice affects life style
18	69	Teachers should know occupations
22	81	Career education is for all students
24	66	Schools should provide job placement services

8. Local group leaders are key persons in this system of teaching, especially in terms of enhancing desirable learning experiences at each ETN location.

9. Large numbers of students can be reached and served effectively by one instructor using ETN if proper support personnel and visual aids are provided; that is, a part-time secretary, a project assistant, and qualified local group leaders should be part of the instructional team.

10. Discussions among students at each ETN location should be encouraged and accommodated by making facilities available at the ETN site both prior to and following the ETN network presentations and discussions.

[6]Responses of 67 percent or more–two-thirds of the respondents.

CHAPTER III

THE CHANGING STRATEGIES: IMPACT ON PROGRAMS, TEACHING , AND PEOPLE IN TEACHER EDUCATION

PERFORMANCE-BASED TEACHER EDUCATION CURRICULA: IMPLICATIONS FOR PROGRAMS

By: Curtis R. Finch
and
James B. Hamilton

Overview

In recent years, there has been much concern expressed about the process of preparing teachers. Teacher educators, teachers, and others such as Koerner (1963) and Conant (1963) have discussed many shortcomings associated with the "traditional" teacher preparation process. These shortcomings include, but are not limited to: (1) teacher education curricula are not built upon the actual work requirements of teachers; (2) instruction is not tailored to meet the needs of individuals; (3) learning experiences are not provided which relate directly to professional needs; and (4) the educational product is not systematically evaluated. Although one would expect major improvements to occur in teacher education over the past decade, this does not appear to be the case. For example, in a study conducted by the National Education Association (1967), a national sample of teachers was asked to evaluate their undergraduate teacher preparation in terms of success in teaching. Although knowledge specialization fields and general education were considered by teachers to have been adequately covered and of reasonable quality, the professional aspects of teaching were said to be less than adequately covered. These included teaching methods, classroom management, classroom discipline, and the use of audiovisual materials and equipment in instruction.

More recently, an Ohio study conducted by Ryan and others (Commission, 1972) found that:

1. Coursework for potential teachers is often inadequate and lacks relevance to the specific task of preparing students for the realities of teaching.

2. Personnel involved in the preparation of teachers are too often ill-prepared for the task and remote from the world of teaching practice.

3. Teaching candidates are too quickly exposed to full teaching responsibilities and lack the opportunity to gradually gain competence in their new professional role.

Although it is easy to place blame for these deficiencies upon teacher educators, it should be recognized that the colleges and universities in which they must function tend to be conservative in their approach to professional education. Teacher educators have been constrained by a combination of forces such as course structure, certification requirements, credit hours, and a general lack of

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direction. As Robb (1968) points out, "The task of teacher education was not properly conceptualized from the onset and we have been a long time overcoming that handicap. Very early we compromised with quality and settled for a hodgepodge of teachers ranging all the way from the stunningly effective to the not-so-warm bodies."

Apparently, minor modifications will not suffice to change the process of preparing professionals for their respective teaching roles. Traditional practices need to be displaced by a more systematic approach to professional development; one which focuses on eliminating many of the present teacher preparation practices and replacing them with an instructional environment that is performance or competency-based.

Characteristics Of Performance-Based Teacher Education Programs

Some disagreement exists as to what the antecedents of performance-based teacher education (PBTE)[1] actually were. There is certainly little doubt that emphasis on the specification of behavioral objectives and individualized instruction has left its mark on the performance-based instruction movement. However, the main thrust as it relates to teacher education seems to have been generated by the U.S.O.E. Elementary Models Projects. Houston and Howsam (1972) indicate that "each of the ten models relatively independently arrived at an emphasis on competencies. Since then, with impetus from a variety of sources, pilot projects have sprung up in a rapidly increasing number of institutions." In fact, the PBTE movement has gained such momentum that, at the present time, eleven states have mandated performance-based programs for the preparation of teachers while a number of others are contemplating this action (Wilson and White, 1973).

What then are the parameters of this important movement? A most meaningful statement on the subject is that published by the American Association of Colleges of Teacher Education (AACTE) in 1971 (Elam, 1971). This AACTE publication specifies certain elements that are considered generic to any program that may be defined as being performance-based by the AACTE Committee on Performance-Based Teacher Education. The five elements that appear to distinguish PBTE from other programs are:

1. Competencies (knowledge, skills, behaviors) to be demonstrated by the student are:

   a. derived from explicit conceptions of teacher roles,

   b. stated so as to make possible assessment of a student's behavior in relation to specific competencies, and

   c. made public in advance.

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[1]For purposes of this paper "performance-based" and "competency-based" are considered to be synonymous.

2. Criteria to be employed in assessing competencies are:

   a. based upon, and in harmony with, specified competencies,

   b. explicit in stating expected levels of mastery under specified conditions, and

   c. made public in advance.

3. Assessment of the student's competency:

   a. uses his/her performance as the primary source of evidence,

   b. takes into account evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior, and

   c. strives for objectivity.

4. The student's rate of progress through the program is determined by demonstrated competency rather than by time or course completion.

5. The instructional program is intended to facilitate the development and evaluation of the student's achievement of competencies specified.

Several additional elements are related and desirable characteristics of PBTE programs. These include: (1) instruction is individualized and personalized; (2) the learning experience of the individual is guided by feedback; (3) the program as a whole is systematic; (4) emphasis is on exit, not on entrance requirements; (5) instruction is modularized; (6) the student is held accountable for performance. Although these elements are implied aspects of PBTE, many have been associated with sound instructional practice for some time.

The elements specified by AACTE aid greatly in the formulation of an explicit definition of performance-based teacher education and, at the same time, reflect the extent to which it differs from traditional teacher education. One may readily observe that PBTE places a great deal of emphasis on the identification, attainment, and assessment of teaching competencies. If, for example, we were to compare a typical traditional program with a typical PBTE program, Table 1 could be used to illustrate some inherent differences between them. Although some may raise issue with the comparison, it does reflect PBTE's focus on explicit teacher competencies as opposed to general statements of achievement. PBTE programs appear different from traditional programs in terms of several basic characteristics: explication of competencies to be attained, assessment criteria and procedures, student orientation, and instructional intent. These differences are what makes PBTE both an exciting and a controversial movement.

TABLE 1

Comparison of a "Typical" Traditional and a "Typical" PBTE Program

Characteristics	Traditional Program	PBTE Program[1]
1. Competencies to be demonstrated by the student are:	· derived from committee consensus · stated in general terms · seldom made public	· derived explicit concepts of teacher roles · stated so that competence may be assessed · made public in advance
2. Criteria to be employed in assessing competencies are:	· based upon general program objectives · general in stating mastery levels · seldom made public	· based upon specified competencies · explicit in stating levels of mastery under specified conditions · made public in advance
3. Assessment of the student's competency	· uses his course grades as evidence of competence · may include his performance as well as knowledge · may focus on objectivity	· uses his performance as evidence of competence · takes student knowledge as it relates to performance into account · strives for objectivity
4. Student rate of progress through program is determined by:	· time of course completion	· demonstrated competency
5. Instructional program is intended to:	· facilitate student achievement of certain general program objectives	· facilitate development and evaluation of student achievement of specified competencies

[1]from Elam, 1971

Implementation Of Performance-Based Teacher Education: Issues

If one agrees with the basic tenets of PBTE (or at least tolerates them), thought immediately shifts to more practical concerns, namely implementation. And it is this area that will probably affect the ultimate success or failure of the PBTE movement.

What then are some of the issues and problems associated with the implementation of performance-based teacher education? Although the authors of this paper recognize that it would be impossible to list all issues and problems and that there is some danger in categorizing them, it was decided to focus on six primary areas of concern. These areas, which are discussed in the paragraphs that follow, include: the identification of competencies; instructional materials; roles of faculty and students; interaction with various groups, institutions and agencies; instructional support; and costs. Although other areas such as evaluation and certification are equally important, it was decided not to focus directly on them as separate entities since they cut across many aspects of implementation.

Identification Of Competencies

When a performance-based teacher education program is being developed or plans are being formulated for an existing program to move in this direction, a primary concern is with the identification of competencies. Since teacher competencies serve as a foundation for PBTE, errors at this point may result in the establishment of a program that lacks validity. One of the major criticisms leveled at some PBTE programs is that they merely "teach the same (and perhaps irrelevant) content with a new and improved framework (Sinatra, 1973)." This approach is perhaps best exemplified by the PBTE program as it was initially developed at Weber State College in Utah (Burke, 1972). Although Weber State did much pioneer work in establishing a functional program, there was little effort made to identify competencies that are actually needed by the successful teacher and to incorporate them into the curriculum. The key issue then seems to be that of identifying "real" competencies, that actually maximize the probability of teaching success. Closely associated with this issue is the establishment of priorities for competencies. Given a comprehensive listing of valid competencies, how can a teacher education institution select those that are most beneficial to the student (assuming that institutional constraints do not permit all to be taught)?

Instructional Materials

As a college or university moves forward with the business of implementing PBTE, an immediate need is felt to obtain and/or develop instructional materials. These generally take the form of modules (learning packages) and supporting mediation (e.g., videotapes, films, reference materials). Although there is general agreement among those in PBTE as to what constitutes a module's component parts, several questions may be raised about what it should actually do. For example, does the module "deliver" on a certain important teacher competency or set of competencies? Is it functional and usable? Does it change teacher behavior? What are the effects of modularization on a grand

scale? These as well as others are legitimate questions which may be raised about instructional materials that are typically used in a PBTE program.

Roles Of Faculty And Students

The roles of faculty and students will most certainly change when a PBTE program is implemented. Or, put another way, if faculty and student roles are not revised the program is probably doomed to failure. One may wrongly assume that change is a relatively simple task. In fact, people (particularly faculty members) may not be receptive to the idea of being involved in "another" new approach to teacher preparation. Faculty may be threatened by the thought of losing a little personal autonomy while students might not relish interacting with instructional packages. Indeed, all who will be associated with a PBTE program can raise meaningful questions about their respective roles.

Interaction With Various Groups, Institutions, And Agencies

Closely aligned with the PBTE movement is the idea of increased interaction with various groups, institutions, and agencies. For example, performance-based certification being implemented in many states is serving to better align teacher education programs and certification requirements. Much collaborative work will surely need to be done before programs and certification are in alignment. Interaction with local education agencies will, likewise, be increased. PBTE has placed a great deal of emphasis upon field-centered instruction where the student will apply principles he has learned in an actual school setting. This may include many more instances of "supervised teaching" than would normally be found in a traditional teacher education program. The implications for interaction with local education agencies are obvious and, in some cases, difficult to predict. Logistics associated with field-centered instruction are often extremely complex, especially for universities located in a more rural setting. Generally, areas in which increased interaction is necessary include teacher education institutions, local education agencies, state education agencies, and other interest groups (e.g., NEA, AFT, AVA, NCATE, AACTE). Figure 1 represents the many persons, groups, institutions, and agencies that can interact with an ongoing teacher education program. With the implementation of PBTE comes a need for increased interaction that is largely due to variance from "the traditional." Persons implementing PBTE programs may certainly ask what needs to be done to insure that proper liaison actually takes place with those represented by Figure 1.

Instructional Support

In order for any teacher education program to function properly, adequate instruction support must be provided. This may take the form of classroom space, audiovisual equipment, student records systems, resource centers, and similar items.

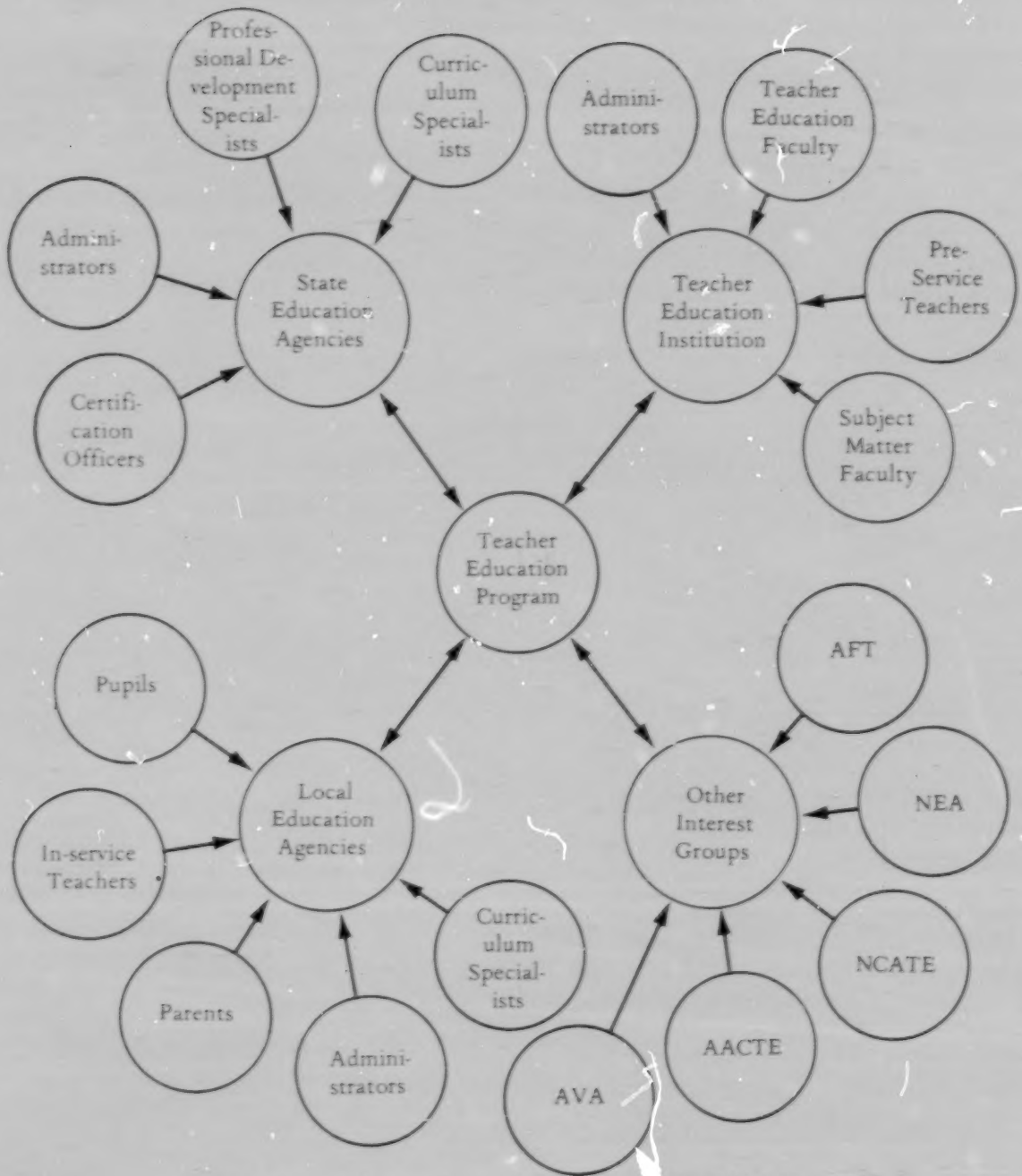

Figure 1. Some Groups, Institutions And Agencies Which May Interact With Teacher Education Programs

As with many instructional programs that break with tradition, PBTE requires that support be realigned to fit its unique needs. This realignment is, for the most part, necessitated because of a shift from traditional practices to mastery learning and individualized instruction. Since students will be learning at their own particular rates and demonstrated competence (rather than grades to serve as records of assessment), facilities must be available to meet their particular needs. Typically, a PBTE resource center, that contains relevant resources such as references and media, is made available to students. A resource person is generally located at the center to assist students in the completion of various module learning experiences. Of course, the lack of such a center may pose a problem to many teacher education institutions and some persons may question its practicality. Other potential problems in the instructional support area include, but are not limited to, making provisions for in-service teacher education, recording student mastery of various modules, and resolving conflicts between the academic calendar and variations in student progress.

Costs

A final area of concern is PBTE program costs. Many persons have negative feelings about this important aspect of PBTE implementation, particularly in light of recent budgetary cuts at various colleges and universities across the country. The primary issue associated with costs seems to be one of comparisons between PBTE and traditional programs. Persons inquiring about PBTE generally ask how much more it will cost or how much more can they get for their investment. At this point in time it appears many are asking about increased institution budgets per se rather than costs in relation to benefits or effectiveness.

Implementation Of Performance-Based Teacher Education: Strategies

It would certainly be nice to think that for every issue there is an answer and for every problem there is a solution. Often, however, this is not the case; a situation that may be quite frustrating to someone directly involved with the implementation of a PBTE program. Fortunately, several universities, colleges, and education agencies across the country are currently engaged in PBTE program implementation and they are facing the many problems as well as seeking practical solutions to them. By focusing on the aforementioned areas of concern as they relate to implementation strategies, it is hoped that some of the mystery associated with PBTE may be removed. Much of the discussion that follows has been generated by vocational teacher educators. Thus, it is hoped that thoughts about implementation may be presented that have a great deal of relevance for those engaged in vocational teacher education.

Identification Of Competencies

There are many ways that teacher competencies may be identified. Houston (1972) indicates several approaches to specifying teacher competencies for use in a PBTE program. These include

program translation, task analysis, needs of school learners, needs assessment, theoretical examination, and the cluster approach. These may be employed individually or in combination to determine what competencies are to be taught in a particular PBTE program. A basic question should, of course, be asked of any competency identification process. Are competencies identified that are actually important to the successful teacher? The model curricula project conducted by The Center for Vocational and Technical Education asked this question and provided answers in several recent reports (Cotrell, et al., 1971-72). Report V lists 384 performance-oriented general objectives that should be of much value to persons who are planning PBTE programs for vocational and technical teachers. Each general objective contains a performance element that has been judged important to successful teachers in two or more of the various vocational service areas. It is strongly recommended that vocational teacher education faculties examine these competencies as they begin the process of establishing a PBTE program.

Some states, regions, and teacher education institutions may desire to develop instructional and/or certification priorities with regard to competencies. For example, a state that serves primarily rural school systems may consider certain competencies more important than would a more populous state and vice versa. Additionally, it may be desired that a priority set of competencies associated with beginning teaching be identified from a master list. Several states have made use of the 384 performance elements identified in Center research to establish their particular priorities for vocational teacher education. Very recently, for example, the Texas Education Agency utilized these performance elements in a study to determine their statewide vocational teacher education needs (Pope, 1973). The results of this investigation should provide valuable input for the development of PBTE programs for vocational teachers across the state.

In many cases, priorities are established at the university or college level. At the University of Michigan, for example, it was felt that some of the 384 performance elements might be more important to the preservice occupational teacher while others could be taught after the person begins teaching (Vogler, 1972). Additionally, time constraints necessitated that decisions be made regarding the extent to which each performance element contributes to teacher success. Figure 2 provides a graphic representation of these priorities and how they might relate to each other.

By employing the grid in Figure 2, vocational teacher educators should be better able to establish which competencies make the greatest contribution and where. Then, assuming that certain constraints do not permit all competencies to be taught, a faculty will be able to focus on those that should do teachers the most good.

Another approach to the establishment of priorities involves application of the DELPHI Technique. This method, originally developed to obtain group opinions about defense problems, has been since used by educators to determine educational goals and objectives. The DELPHI Technique allows for a great deal of faculty involvement in teacher education curriculum decision-making and keeps each faculty member constantly aware of the reactions of others. Through successive rounds of respondent ratings, consensus may evolve with regard to priorities of teacher competencies (Zimpher, 1973).

	Competency must be taught on a preservice basis	Competency can be taught on an in-service basis
Competency makes a greater contribution to teacher success		
Competency makes a lesser contribution to teacher success		

Figure 2. Establishing Vocational Teacher Education Program Priorities

Instructional Materials

After valid competencies are selected for a PBTE program, the next logical step is to provide means by which these competencies may be taught. Typically, modules are used instead of traditional instruction to accomplish this task. The modular approach enables PBTE programs to be more flexible in meeting the needs of students and providing self-paced instruction. Although modules may be identified by many "brand names," there are some basic standards that can provide guidance for those who are planning to implement PBTE. Some of the questions that we are asking or plan to ask about modules currently under development at The Center focus on instructional content while others deal with acceptability and behavior change. Initially, as modules were being developed at each of our cooperative curricula development sites (Oregon State University, University of Missouri-Columbia and their respective state departments of vocational education), every effort was made to insure that each module delivered on one or more of the 384 performance elements. Module revisions based on faculty member inputs are being conducted to make the content of each as relevant and usable as possible. Preliminary formative testing, which is currently being conducted in conjunction with Oregon State University, University of Missouri, and Temple University, involves preservice and in-service teachers in the feedback process. After each student has completed a module he/she is asked to provide information about the experience. Teacher educators who are supervising students completing the modules also provide information and interviews are conducted with some persons so that face-to-face reactions may be recorded. Feedback from the initial testing will then be incorporated into a second revision in order that each module's usability and acceptability may be refined. During the advanced formative testing, modules will be tested experimentally to determine if, in fact, they do change teacher behavior. This testing, which is to begin early next

year, will involve several additional teacher education institutions. Letters being mailed to state directors of vocational education this fall will indicate how colleges and universities may express an interest in joining with The Center for this phase of module development.

Ultimately, The Center will make available an array of some 120 mediated modules which, collectively, deliver on the previously mentioned 384 performance elements. After a particular teacher education institution has determined its PBTE objectives (i.e., competencies to be taught), specific modules may be selected from the array to fulfill these objectives. This process provides maximum flexibility of choice by each institution, with a range of adoption from none to the entire array. Colleges and universities will thus be able to build PBTE programs that meet their particular needs and, at the same time, provide instruction that has already been subjected to a number of reviews, field trials, and revisions.

Roles Of Faculty And Students

The roles of students and faculty members are, at once, most difficult to deal with and most critical to the success of a PBTE program. Without acceptance by faculty and students, any innovative program will surely fail. What then are some of the ways that persons may be best apprised of their respective roles? Houston (1972) suggests conferences and retreats as one way to introduce PBTE concepts to people. Another approach consists of just plain active involvement by faculty. The extent to which faculty members contribute to the program will probably determine how much support they eventually give to it. Involvement of all faculty who will be associated with the program is a necessary part of implementation. Students can be oriented to PBTE by way of presentations and tours of facilities that point out its unique aspects and how it may be of value to them.

With the establishment of a PBTE program, the faculty member becomes involved in facilitating, managing, and evaluating module learning experiences and serving as a student resource. The student (preservice and in-service teacher) becomes more responsible to himself since he may proceed at his own rate and must focus on mastery instead of course grades. Although little empirical evidence is available on the acceptance of these new roles, several teacher education institutions (e.g., Burke, 1972; Getz, et al., 1973) have indicated that both faculty and students do adjust, but not as swiftly or easily as one might expect.

Our work at The Center has not been exclusively associated with module development. Recognizing the need to orient faculty and students, plans are underway to develop an "orientation to modularized instruction" booklet and similar implementation items that will assist persons in understanding what PBTE is and where they (faculty and students) fit into the entire scheme. As work continues on the testing and revision of modules, we will be attempting to establish more tangible means by which the transition from traditional to performance-based teacher education is made as smooth as possible for both students and faculty members.

Interaction With Various Groups, Institutions, And Agencies

As indicated in Figure 1, it is possible for any teacher education program to have a great deal of interaction with others. Performance-based teacher education, with its emphasis on field centered instruction and assessment in the real world, certainly qualifies in this regard. Those responsible for establishing PBTE programs should be aware that increased liaison is necessary between teacher educators, state and local education agencies, interest groups, and others within the teacher education institution itself. Representatives from these groups, institutions, and agencies who are interested in establishing and maintaining liaison could form ad hoc committees. These committees would focus on specific problems associated with PBTE that require a great deal of interaction. Certification, for example, might not be handled properly unless agreement is reached among faculty, administration, and representatives from state and local education agencies. Since changes in certification requirements could affect some teachers' livelihood, invitations to committe membership might be extended to AFT and/or NEA representatives.

As a university or college establishes PBTE field centers, close coordination with cooperating local education agencies is essential. A great deal of pioneer work in this area, which will be discussed in a later presentation, has been done by the vocational teacher education staff at Temple University. Coordination within a university or college is also extremely important. A performance-based program for vocational teachers should certainly not duplicate offerings in general teacher education. If at all possible, the entire teacher education staff should work together to build PBTE programs that are compatible. Efforts currently underway at Oregon State University to implement PBTE across the School of Education exemplify this idea. Strong leadership for this planned change is being provided by vocational teacher education faculty and administrators at Oregon State who are already engaged in the use of some PBTE materials.

Our development experiences to date have shown us that it is extremely beneficial for teacher education institutions to maintain close liaison with the state director of vocational education and his staff. Keeping state level leaders informed of developmental activities will enable them to speak on behalf of a program, should the need arise. In our cooperative work with Oregon, Missouri, and Pennsylvania we have found that leaders at the state level provide extremely valuable, pragmatic input for program development. It is strongly recommended that persons at this level play an active role in PBTE implementation.

Instructional Support

Many who are currently engaged in performance-based teacher education have indicated that a resource center contributes greatly to program success. Weber State, for example, found that their center for module dissemination, testing, and scheduling of learning experiences became the hub of operations for their total system (Burke, 1972). At Illinois State University, an information-retrieval system providing a multisensory approach for many of the student learning activities became a basic part of the program (Getz, et al., 1973). In fact, as colleges and universities begin initiating PBTE programs, a need is quickly felt to establish resource centers that meet students' needs.

What are some of the considerations associated with building a viable resource center? Perhaps a primary consideration is to determine the objectives it should actually meet. Some possible objectives associated with resource centers (although not behaviorally stated) are: to serve as a center where students (preservice teachers and in-service teachers) may work on module learning experiences; to provide students with assistance in the attainment of module objectives; to make available module resources (e.g., films, videotapes, reading materials); and to conduct assessment of teaching competence. Typically, each teacher education institution would establish its own resource center objectives, document them, and then begin the planning of such an operation. Cruickshank (1973) has provided some useful suggestions for PBTE planners. He mentions that educational facilities laboratory consultants should be enlisted to aid in the conceptualization and for development of a resource center. Additionally, it is perhaps best not to be overly ambitious. Development should be conducted incrementally and in conjunction with the transition from traditional to PBTE.

A final comment regarding resource centers should be made. It is very important that faculty members be available to assist students whenever the resource center is open. The teacher's new role as a facilitator and manager of instruction dictates that students obtain assistance when they need it. Problems associated with this aspect of resource center operation may be resolved if faculty members are oriented to their respective roles and are given appropriate "credit" for the time they spend working with students.

An equally important aspect of instructional support is the task of maintaining records of student progress. With the shift from courses to modules and from grades to mastery, many may be faced with the redesign of student records systems. Perhaps one of the most ambitious efforts to meet this need is being accomplished by Wayne State University (Cook, et al., 1972). The vocational teacher education faculty at Wayne State are currently working with a computerized management information system which allows for swift and accurate recording and retrieval of student progress information.

Costs

Ultimately, the decision to implement PBTE may depend upon its cost. College and university administrators are keenly aware of costs associated with innovative activities and may not approve a new program if its costs are appreciably greater than an existing program. In this discussion, attention is focused on program initiation and operation costs rather than module development costs. If we may assume that Joyce's (1972) figures are accurate, development of a statewide (or national) prototype PBTE system with local options appears to be the best cost option. Thus, we hope that our developmental efforts at The Center will reduce costs associated with program implementation at the teacher education institution level. From a comparative standpoint, it is anticipated that the cost of adopting PBTE will not be prohibitive in that once it is established the cost per student should not greatly exceed that of a "good" traditional program. The transition period from a traditional to a PBTE program will probably be the most costly as it will necessarily include original purchase of all materials including modules, resources, and audiovisual equipment for student use. Additional funds will possibly be required for personnel (professional and support) and establishment of a resource center. In terms of comparative costs the following are considerations:

1. Professional staff costs will be higher during the installation period of the performance-based teacher education program due to in-service preparation of faculty. Many institutions may find it necessary to convert gradually to the PBTE program, therefore necessitating that both performance-based and traditional programs be offered for a period of time as parallel programs on the same campus.

2. It is anticipated that at least one extra support staff person will be required for implementing the PBTE program to manage the resource center on a continuing basis, although this person may already be available in an existing instructional media laboratory.

3. Initial costs of resources (e.g., textbooks, mediation materials) for the PBTE program will be more than the traditional program. After the initial outlay, maintenance costs should be comparable.

4. Although "good" traditional programs will have adequate audiovisual equipment, some teacher education institutions will need additional equipment for the PBTE program, especially videotape equipment.

5. Since students (preservice and in-service teachers) will be encouraged to proceed through the PBTE program at their own speed and will be permitted to "test out" of modules for which they already possess competencies, many should spend less time completing the performance-based program than a traditional program. Some, however, will find the opportunity to extend completion time attractive and delay completion beyond usual academic time periods.

6. The PBTE program is best compared in cost with the traditional program of teacher education in terms of cost-effectiveness and cost-benefit. Persons contemplating the establishment of a PBTE program should consider the returns on investments. For example, what percentage of teachers prepared in a traditional program can perform certain specified competencies as compared with those prepared in a PBTE program? Even though the cost of PBTE may be higher, the return promises to be many times that of a traditional program in terms of competent teachers prepared.

Some Final Thoughts

In this discussion we have attempted to focus on a number of key concerns about PBTE implementation. There are, indeed, many others that have not been discussed and some that have not yet been discovered. As we continue to work with teacher education institutions in the testing and refinement of performance-based modules, it is hoped that more detailed information may be gathered regarding implementation problems and solutions. Ultimately, the result will be a smoother transition between the present and the future of vocational teacher education.

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THE WRITING PROCESS

By: F. Milton Miller

I will direct my comments this morning toward the module writing process—more specifically, the writing process used at the University of Missouri. Approximately twenty-four months ago the site team from The Center arrived at Missouri consisting of two and one-half full-time equivalent staff members. The Center site team consisted of a site team leader, a site team member, and a research associate. The sites were asked to match the two and a half Center staff with faculty members representative of all service areas and those involved in the teaching of professional courses in vocational-technical teacher education. This matching process at Missouri consisted of eighteen faculty members representing the five service areas of agricultural education, business education, distributive education, home economics education, and industrial education with their involvement ranging from ten to fifty percent of the regular staff assignment. In other words, when their full-time equivalency (FTE) was computed their involvement in this project was assigned a portion of the 100 percent total. The actual numbers involved by service areas were: agricultural education, two; business education, two; distributive education, three; home economics education, four; industrial education, four; and there were three EPDA fellows involved.

During the past twenty-four months some fifty modules have been written and reviewed at the Missouri site in addition to the modules developed and reviewed at Oregon State University and at The Center.

Now let me turn to the details of the module writing process. The process involved some eleven steps.

Step 1: Consisted of The Center site team and the eighteen faculty members meeting in a large group to review the conceptual framework for a given category (this relates to the heading given to a group of performance elements; for example, instructional planning, guidance, coordination, etc.). At this time tentative objectives and module titles were discussed. These meetings could best be described as brainstorming or no holds barred types of sessions. At times these sessions were rather lengthy and involved, but finally each ended with faculty consensus on the category under discussion.

Step 2: The large group was then divided into writing teams. Typically the large group mentioned in Step 1 was divided into three or four small writing teams with a Center team member working with each small group. The small teams were organized with all service areas being represented where possible. The writing teams would then begin to develop objectives and identify potential resources for their module. Simultaneously there were other writing teams at Step 2 and therefore at any given time three or four modules were under development.

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Step 3: The Center site team member would then take the input received in Step 2 and rough out the introduction and first learning experience for the module.

Step 4: A small writing team would review the work completed in Step 3 by The Center staff and then identify additional learning experiences, resources, and the module assessment. As you can see, the faculty served as reviewers and sources of information rather than module writers as such.

Step 5: Taking the input received in Step 4, a Center site team member would then rough out the remainder of the module, consisting of the remaining learning experiences and assessment.

Step 6: The same small writing team referred to in Step 4 would then review the module and make suggestions for revisions.

Step 7: The Center site team member would then revise the module based on the input received.

Step 8: After the revision, the module was sent to a second small writing team for review. This writing team was involved in the original conceptualization in Step 1 and provided input from a group that was knowledgeable about the module and at the same time able to view the module from a different perspective than the group involved in the day to day writing of the module.

Step 9: The Center site team member revised the module based upon the input received in Step 8 from the second review team.

Step 10: Was a total faculty review by the eighteen faculty members involved with the project. This was the final stamp of approval or our "go" and "no-go" gauge.

Step 11: Was the forwarding of the module to Oregon State University and The Center for their reviews and suggestions for improvement.

This writing and review cycle took approximately eight weeks for one module with the module development overlapping and several modules being developed simultaneously. This briefly describes the module writing process that was used at the University of Missouri site. This process went through several prototypes before it was finalized.

Observation: Based on my involvement as a member of several writing teams and as the coordinator of our faculty's involvement in the project, I would like to close with the following observations concerning the effects of this kind of research and development project on a faculty.

1. The mix of service area representation, in this case with the module writing teams, builds unity within a department as it fosters a greater understanding between service areas.

2. Although this is a very involved process with several revision points, I believe the checks and balances are needed and will result in a better finished product.

3. The professional expertise of a faculty is strengthened by their involvement in the development process rather than just professional reading or listening to information on the subject.

4. This kind of a project develops a professional flexibility as a faculty gives and takes and works toward meeting the goals of such a research and development project where all of the ground rules are not cast in stone.

5. To receive the maximum effort of a faculty in such a project, particularly over the long haul, it is essential that part of their FTE load be assigned to the project–as this is much more than just a hero job.

This briefly provides you with some of the procedures employed and reflects on the module writing process utilized at the University of Missouri site.

UTILIZING PERFORMANCE-BASED MODULES IN TEACHER EDUCATION PROGRAMS

By: Mary Jane Grieve

> One need not be a prophet to recognize that the forces in education today have the makings of a great resurgence in education or of a grand retrogression, depending on the kind of thinking that has most weight upon their shaping. The development of a coherent theory of curriculum making will be one of the items that determine in which direction the scales will tilt.
>
> 1. Taba

There can be in my mind no choice in the way that we as teacher educators wish to tilt the scale. One major task for teachers and teacher educators, regardless of the era when they actively practiced their profession, has and is the setting of objectives or priorities for their work that lead to accountability. Although the demand for accountability seems to be getting more emphasis these past few years it is not a new concept. Outstanding teachers and teacher educators have always had that as a major goal.

Educators since early times have endeavored to set objectives to bridge the demands of the profession to those of their clientele. For instance we recall Benjamin Franklin's disgust with the Latin Grammer School and his 1743 *Proposals Relating to the Education of Youth in Pennsylvania*, that led to the establishment of the first academy in Philadelphia in 1751.

> As to their studies it would be well if they could be taught everything that is useful and everything that is ornamental. But art is long and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and more ornamental; regard being had to several professions for which they are intended.
>
> 2. Benjamin Franklin

Noticeable in Franklin's intent also was "the training of our Natives to bear Magistracies and execute other public offices of trust" and "a number of the poorer Sorte will be hereby qualified to act as school masters". Hopefully our good friend Benjamin was referring to financially rather than intellectually "poorer Sorte" as he stated this objective.

A major question that, as I see it, must be answered is—how does one best prepare teachers, assuming we can agree upon what the objectives for teacher education are. Dr. Edward Pomeroy, 1972 Hunt Lecturer, AACTE annual meeting, Chicago, Illinois, said:

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> Performance based teacher education, sporadic and scattered as it is has the potential for restructuring the education of teachers. It bespeaks the emerging future and points the way for teacher education.
>
> 3. Dr. Edward Pomeroy

It is to this end–a performance-based teacher education program–that the Co-operative Curriculum Project that I as a teacher educator at Oregon State University have been involved in for the past two years.

Let's look at one phrase of Dr. Pomeroy's statement, "the potential for restructuring the education of teachers". Why does it need restructuring, you might ask? Is it because we as teacher educators have been better proponents than practitioners of teaching/learning theories? In how many university teacher education programs have we stressed recognizing the individual and planning programs to meet their needs while we are demanding the same assignments, due on the same date, and often using an identical format of presentation from each of our students? How often too, have we professed that education should make each individual able to function independently in our society and then lowered his grade when he showed the slightest deviation in the way an assignment is accomplished; or while using lectures as our major means of promoting learning?

It has been said that we hear only 55 percent of what is said and retain only about one-half of that. Is it any wonder then that students do not remember much of what went on in college education classes when they get into the 'real world'. We tend to teach as we are taught, therefore, if the primary strategies used in college teacher education are lecture, reading assignments (and usually from the same book for all students), and written work then these will be the major strategies used in elementary and secondary education. Could this be why very few humans function to capacity and few exercise their innate creativity?

Piaget contends that children learn best using concrete examples and having actual objects to manipulate and visualize. Dewey too, was a believer in providing the materials from which students could draw inferences and see relationships. A basic tenet of vocational education is learning by doing. Can we as vocational educators expect our students to learn these methods in the isolation of a classroom? Not that I, nor any of the rest of you, I hope, propose that we are to manipulate students, but rather that we can provide experiences that will help prospective teachers put theory into practice. I see the modules as an aid in this task that we face. Although I've had limited experience in testing modules, my experience with the modules thus far has been in the preparation stage rather than in the actual testing of them. I only wish that I could be preparing this presentation after December 17, for by then I will have had several interesting experiences from which to draw my remarks. This term I decided to offer my Special Secondary Methods Class an option of the 'regular way' which does in itself offer some options and much opportunity to become involved in decisions about course content; or to take the course by using modules. Before making a decision we discussed and planned the course objectives. I explained that while each of the twenty-six students in the class would have experience with two modules–one as a group member and one as an individual, they could if they so chose meet the class objectives completely through the use of modules. Each was asked to think through his own needs and abilities and to decide which course

of action to choose. Several came in after class to pursue the idea further. Of these, four chose to try this alternative. Two who came for conferences decided to stay with the regular way. During the conference I had them look over a module and tried to explain my role as a resource person and what the relationship would be.

My next and probably hardest step (to this point) was in choosing the modules that would best help the students meet the class objectives as well as fit their personal needs. Some of the modules I'll require and the students will have an option with others. Hopefully, I can assume some transfer of theory between concepts. This is as far as I've gone at the time this paper had to be submitted, for school had been in session less than a week. Perhaps by the Dallas meeting I will have more information about the experiment; but as in any methods course the true test is when the students assume a student teacher and/or teacher role, so perhaps we'll need to explore this in greater depth five years from now. Even then, unless one used a much more sophisticated research model, it would be hard to say whether their performance is a function of the modules or of their innate abilities, and other experiences. I wonder too, if the four who chose to do it this way did so only because the class meets at seven-thirty three mornings a week.

Needless to say, the decision to allow them the choice was not an easy one for me. It does place extra demands on time and energy—and besides nothing could be as good as what I can offer them, can it? A nagging thought. Perhaps it can-make me feel morally obligated to give the modules a chance. If in order to become certified teachers they have to show competence, then I must do everything in my power to help them attain this competence. This is one more way I can try. Certification in Oregon has moved in that direction. Now I'd like to list just a few of the limitations and strengths of these modules as I personally see them. Because I'd like to end on a positive note, I'll list the limitations first.

One major assumption in the use of any self-paced material is that each person who reads and uses the material will have the same interpretation of the intent of the material that the writers and reviewers had. This, I believe, is not necessarily the case. I found in reviewing them that often I misinterpreted the intent.

Another major drawback, as a writer, was the fact that there were no built in opportunities or funds for developing new resource materials to go with the modules. To me, this placed very confining limitations on creativity.

In writing the modules it was easier to specify and develop measureable objectives in the cognitive and psychomoter domains, than in the affective domain. By having to state an observable objective, it was necessary to overlook the fact that often while working with a student one often gets a 'feeling' or 'notion' of his behavior which is not easily defined. I personally feel that the affective domain plays a great part in developing the intellect of students, and that often in stating objectives this specifically we are overlooking the nature of human learning and one of the big goals of education. Perhaps the evaluative devices need to have a place for this subjective summary by the resource teacher.

The last limitation has to do with the administration of the modules. If they are to serve as I believe they were intended, we will need to seriously look at the way our programs in teacher education are structured. It is folly to think that we can segment as is done now the competencies that are expected in each of four or five courses and gain a quality performance-based self-paced teacher education program.

Now for strengths. If one believes that a teacher is a facilitator of learning rather than a dispenser of facts, how can we continue to lecture, read, discuss, and then start the cycle over. The modules provide concrete material that a teacher educator can use to put this theory into practice. If students are truly allowed to use the modules in a self-select and self-paced way then teachers should have time to dwell on the diagnostic and prescriptive aspects of teaching.

By having specific competencies defined, a person who is contemplating teaching as a vocation could be advised as to what these are and helped to assess his own aptitudes for the profession. Then perhaps teacher education might not have the reputation of being the 'last resort' career choice of those who had aspired to 'bigger and better things' but didn't quite hack it. To me EDUCATION is the one discipline that affects all other. One needs to be educated to function in any career be it a doctor, lawyer, teacher, parent, sanitation engineer, ditch digger, or whatever. No other single group of persons has as much influence on all human beings as do teachers. Therefore, I feel that we as educators need to find ways to attract to our field those who will become the best teachers—even those who may be financially "poorer Sorte" but certainly not the intellectually "poorer Sorte".

That teaching is a process not a product is one of my highest held beliefs; therefore, I feel we need to look at the processes of education. Hopefully, by using the modules fall term in the three different ways—as a group assignment, several girls doing one cooperatively as an individual assignment but not necessarily all on the same module, and as the means of meeting the entire set of objectives for a given course that I shall have a chance to evaluate different processes critically.

Oregon State University has set up a learning resource center in which all modules with their resource materials are housed. There will be a staff member and/or graduate assistant on duty to help answer questions, do videotaping, etc., when the students' resource teacher isn't available. Dr. Wayne Courtney, who is director of this center, describes the advantages of the learning resource center as:

1. THE STUDENT CAN CHOOSE HIS OWN TIME TO LEARN.

   Learning programs are located in an "open laboratory" or "resource center" where the student can come and go according to his own personal schedule.

2. THE STUDENT CAN STUDY FOR AS LONG AS HE WISHES.

   Since the individualized part of the course is unscheduled, the student may participate in the learning experience for as long as he is mentally productive.

3. THE STUDENT CAN PROCEED AT HIS OWN RATE OF LEARNING.

   The student controls the materials and media presentation and may repeat the program or move ahead according to his own needs.

4. THE STUDENT IS IN A DISTRACTION FREE STUDY ENVIRONMENT.

   The student has a front row center seat with respect to the audiovisual materials. Earphones may be utilized to eliminate outside noises.

5. THE LEARNING EXPERIENCE IS ACTIVE RATHER THAN PASSIVE AND INVOLVES A VARIETY OF ACTIVITIES.

   The student is frequently asked to perform a task or participate by writing responses or observing. The learning center facility provides slides and tapes, motion picture films, models, maps, globes, displays, and any other media to the learner.

6. THE STUDENT KNOWS WHAT IS EXPECTED OF HIM AND IS GRADED ACCORDINGLY.

   Properly prepared programs have well defined objectives and learning goals. The learner tries to reach a competency level rather than a grade based on a normal distribution.

7. MORE STUDENTS CAN RECEIVE PERSONAL ATTENTION FROM THE INSTRUCTOR.

   While many students are busy with their own learning experiences, one student can receive assistance from the instructor on a one-to-one basis. Small group discussions are also possible because of the rearrangement of the instructor's schedule.

8. INDIVIDUALIZED PROGRAMS CAN SERVE A LARGER NUMBER OF STUDENTS WITHIN THE SAME SIZE FACILITY.

   The learning laboratory can be made available more hours than a conventional lab since it is self-teaching and can be supervised by a lab or faculty assistant. More than one course can utilize the facility at the same time.

9. INDIVIDUALIZED PROGRAMS ARE USUALLY BETTER ORGANIZED AND THE MATERIALS CAN BE EVALUATED AND CHANGED WHERE IMPROVEMENT IS NECESSARY.

   The program materials are physical; they can be judged by the learner, the instructor, and by his colleagues. Details can be corrected if wrong or not clearly stated.

10. THE INSTRUCTION IS CONSISTENT, ACCURATE, CONTINUALLY DYNAMIC, AND PATIENT.

    The inconsistency of day-to-day physical effectiveness of the instructor can be avoided. The instruction will be the same for every section where multiple sections of one course are offered.

Perhaps the words of Bach in *Jonathan Livingston Seagull*, "The gull sees farthest who flies highest" has implications for teacher education also.

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MODULE UTILIZATION IN VOCATIONAL TEACHER EDUCATION AT TEMPLE UNIVERSITY

By: Richard A. Adamsky

This past September, more than 100 occupationally competent persons without any vocational teacher preparation began teaching vocational students in the Eastern Region of Pennsylvania. One hundred and eight of these new teachers are currently receiving their teacher education on an in-service basis within our competency and field based Vocational Teacher Education Program called VITAL.

VITAL is an acronym that stands for Vocational Intern Teaching which is Applied Learning. The word VITAL aptly expresses our concern that each beginning vocational teacher be required to apply immediately the teaching skills he or she develops as a result of his or her professional education; further, that the application occur in an actual teaching environment.

Pilot Project - The Past

Program VITAL evolved from a pilot project that was conducted this past spring semester. The pilot project was the product of an agreement between The Center for Vocational and Technical Education at The Ohio State University and the Division of Vocational Education at Temple University. In this agreement, Temple University was designated as a site for module testing and, with the endorsement of the Pennsylvania Department of Education, Bureau of Vocational Education, testing began as part of the pilot project.

The traditional in-service vocational teacher education program at Temple requires in-service teachers to obtain their professional preparation by attending classes at one of our several centers. When an intern teacher has successfully completed a number of courses, he or she is granted a provisional teaching certificate. The provisional certificate can be made permanent upon the successful completion of additional course work and three years of teaching on the provisional certificate. We have found very little evidence to support the conclusion that our traditional program is influencing greatly the teaching behavior of our in-service teachers. We feel that the primary reason for this is that the application stage in the learning process is being largely neglected since the mode of instruction is most often that of lecture and discussion.

The pilot project was designed to overcome several weaknesses in our traditional program. Foremost in our minds was: (1) to individualize the vocational teacher education program, (2) have it competency based, and (3) to require each in-service teacher to prove his teaching competency in an actual teaching environment.

The modules that The Center released to us for testing allowed us to individualize our program; modules could be assigned to each in-service teacher based upon his specific needs. Since the modules

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are designed to move a user through learning experiences that progress from simple awareness through the application stage of learning with specific criteria for judging competency, the program could be competency based; competency that can be proven in an actual teaching environment.

In January of 1973, fifteen beginning vocational teachers from Delaware County with little or no professional preparation volunteered to receive their professional preparation via the pilot program. A resource person was appointed to assess their professional needs, assign modules to them on a needs basis, and to help them use the modules to develop specific teaching competencies. An instructional material specialist was also appointed to assist the resource person in such things as obtaining instructional material and keeping records of competency development.

The resource person worked within the three Delaware County Schools four days each week with the fifteen beginning teachers and helped them develop specific teaching competencies. On Friday of each week, he returned to Temple with evidence of his teachers' competency development. Evidence came in two forms; either videotapes of the teachers performing specific teaching skills or products that the teachers had produced. The resource person would also bring back videotapes of the conferences he had held with either individual teachers or small groups of the teachers.

Evidence of teaching competency was reviewed by the resource person, the curriculum specialist, and the project coordinator. Based on the evidence, individual teachers were either given credit for having developed a specific competency or were cycled back to participate in additional learning experiences. Upon completion of a module, a new module was assigned to a teacher based upon his or her needs. Evidence of the resource person's ability to help his or her teachers through individual and group conferences was reviewed by the resource person and the project coordinator. This evidence was used to help the resource person sharpen his supervisory skills.

In May, the pilot project ended. The success of the project was best expressed by one master teacher from the Delaware County Vocational Schools. He had this to say about the project: "The teachers out here view the traditional program as something an intern teacher must complete to get a teaching certificate. In contrast, they feel that the intern teachers receiving their professional education VITAL style are developing the skills needed to teach vocational students."

It would be foolish of me to state that the pilot project was completely successful. There were a number of problems encountered during the project. In spite of these problems, the fifteen teachers who participated in the pilot program became measurably more competent teachers than they were prior to their experiences within the project.

Program Vital - The Present

We were so encouraged by the results of the pilot project that we decided that each person entering vocational teaching directly from business and industry in September 1973 should be given the same opportunity as the fifteen teachers from Delaware County.

In order to make this possible, Program VITAL was designed. The program incorporated a number of concepts often suggested by teacher educators, but seldom employed by them for one or another reasons. Among the concepts incorporated were: field-based teacher education, competency-based teacher education, criterion referenced evaluation, individualized learning, self-pacing,

self-evaluations, and differentiated staffing. The VITAL program is effective only because each concept works in combination with the others. The program could not be effective unless differentiated staffing is a reality. Therefore, let's examine the staff we are using.

The Intern: The intern is ultimately responsible for his or her own learning since he or she sets his or her own learning pace and performs self-evaluating. He or she is in effect a member of our staff.

The Resident Resource Person: The resident resource person is a helper to his or her interns. He helps the interns analyze their own needs and select self-instructional modules. He guides interns in the selection of learning experiences and provides them with feedback on their performance. Since he is the resident resource person, he is a master teacher in the school in which his interns are teaching. He helps them when he himself is not teaching his own students. Generally he works with from two to three interns at a time.

The Field Resource Person: The field resource person has from twelve to fifteen intern teachers to help. He or she also helps the resident resource persons working with his or her interns. He or she works closely with senior teacher educators. He or she functions in much the same manner as a resident resource person, but has the additional responsibility of collecting evidence of the competencies his or her interns have developed. This evidence is presented to his or her senior teacher educator. Unlike the resident resource person, he or she is an employee of Temple University and moves among as many as four local educational institutions.

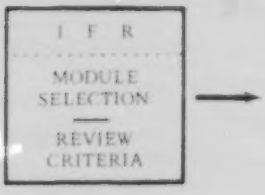
The Senior Teacher Educator: The senior teacher educator coordinates the efforts of his resource persons in developing the teaching competency of his interns. He must maintain cooperative relationships between the university he represents and a local educational institution in which his interns are located. Frequently he reviews his interns' competency development with his resource persons and directs their efforts to develop supervisory skills.

The Council of Educators: The council of educators consists of representatives of local administration, teacher education, and competent teachers. The function of the council is to evaluate each intern's competency when a certification decision is to be made about the intern. On the basis of the evidence presented to the council by the senior teacher educator on behalf of his or her intern, the council may recommend that the intern be provisionally accepted into the profession, or develop additional competencies prior to acceptance.

The staff needed to make the VITAL program operational was identified and trained this past summer. Additional staff is currently undergoing training.

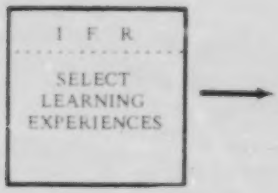
The VITAL program operates as follows:

The first step is taken when a resource person meets with one of his or her interns to help him or her own teaching competency. On the basis of this analysis, the intern selects a module and then reviews the performance criteria stated in the module.

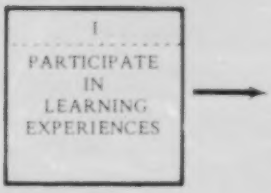


At this point, the intern must decide if he can meet the stated criteria or not. A "yes" or "no" decision is reached that determines the next step he will follow. Let us follow a "no" decision first.

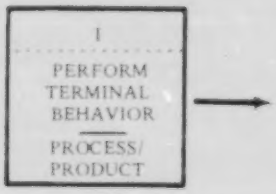
In this case, the intern would be guided into appropriate learning experiences by his or her resource person.



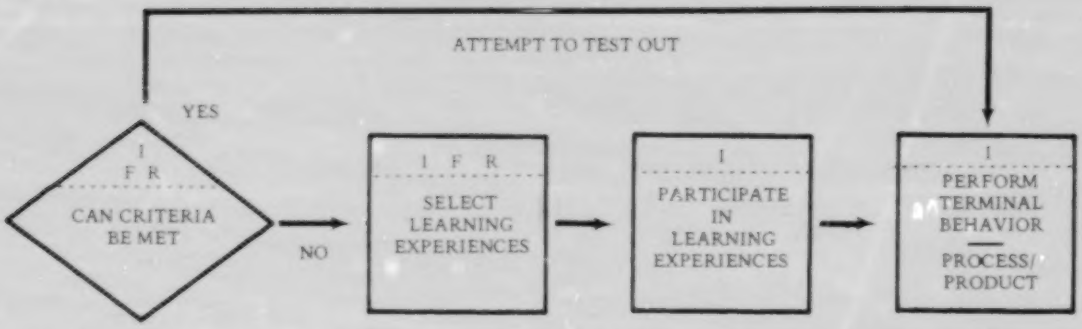
The intern will find himself doing such things as viewing a film, or practicing a teaching skill before his peers.



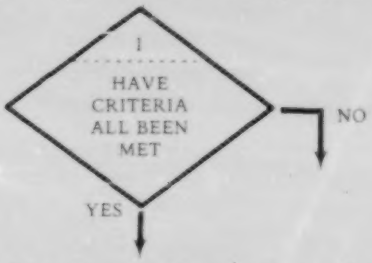
When the intern believes that he or she can meet the stated criteria for performance he or she attempts to prove his or her competency. He or she might show that he or she is able to introduce a lesson, employ oral questioning, or prepare a lesson plan.



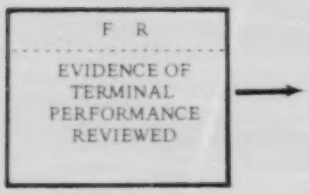
Notice that earlier it was decided to follow a "no" decision. However, it is possible for the intern to have reached a "yes" decision and immediately try to prove his competency.



Self-evaluation occurs next. The intern compares his performance against the stated criteria for competency. He must decide for himself if he is competent at the particular teaching skill he is working on. A "no" decision cycles him back to additional learning experiences.



In contrast, a "yes" decision results in his providing evidence of competency to his resource person.

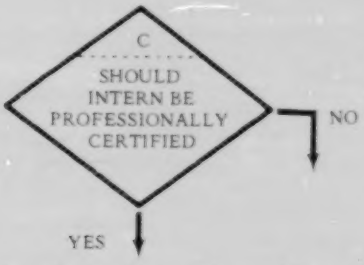


His resource person then decides whether or not he has met the criteria at an appropriate level of performance.

In either case, a conference is held between the intern and his resource person. The resource person helps his or her intern analyze his or her competency and advises him or her as to whether or not the evidence should be reviewed by a senior teacher educator. The intern either chooses to participate in additional learning experiences prior to once again trying to prove competency or chooses to have the evidence presented to a senior teacher educator.

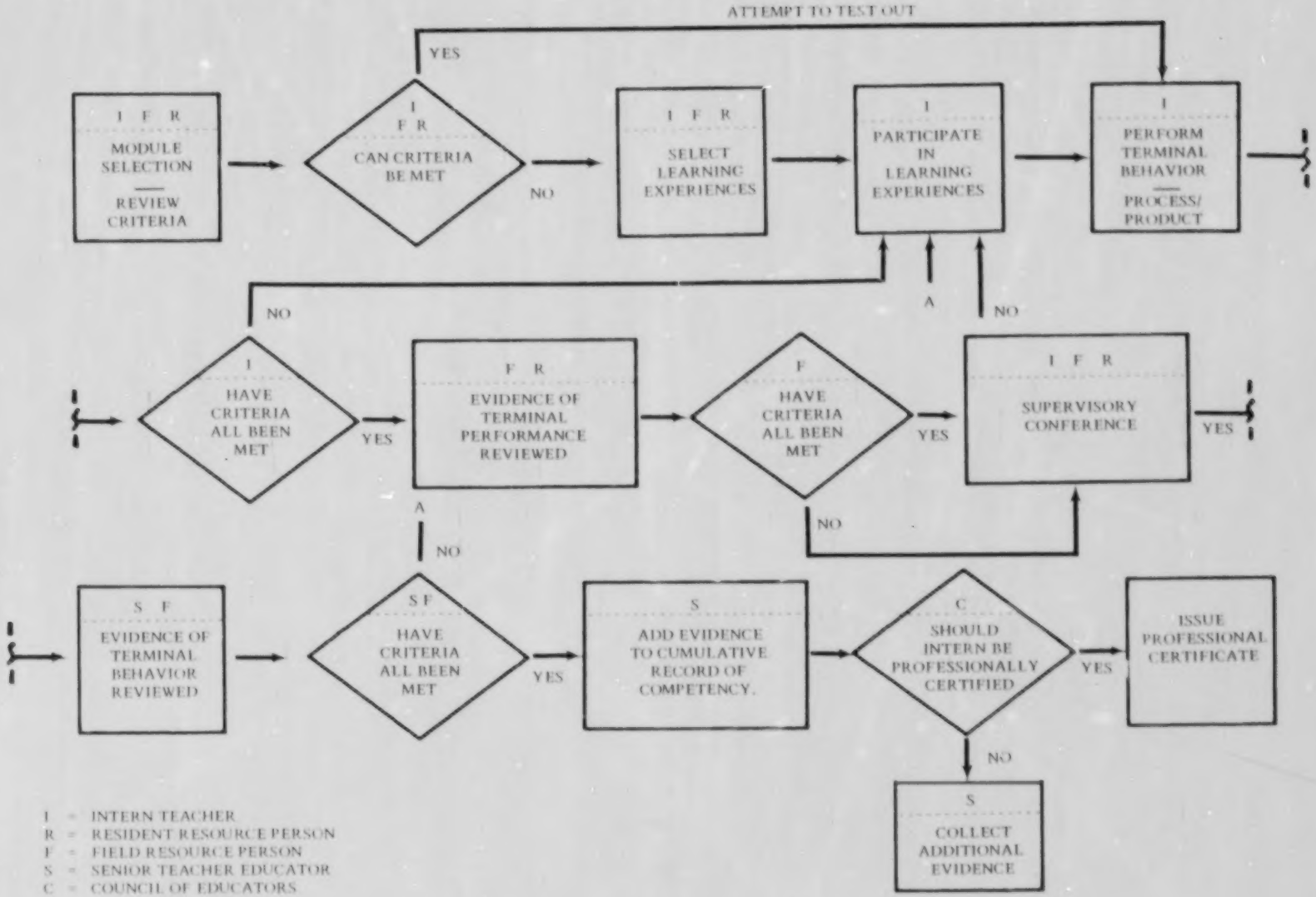
If the evidence is to be reviewed by a senior teacher educator, the resource person and the senior teacher educator hold a meeting. The evidence is reviewed by both and a decision is reached to either cycle the intern back to additional learning experiences or add this evidence of competency to that already accumulated.

When, in the opinion of a senior teacher educator, sufficient evidence of an intern's teaching competence is accumulated to justify being provisionally certified as a vocational teacher, the evidence is brought to the council of educators. The council reviews the evidence and decides whether or not to recommend the intern for provisional certification.



The senior teacher educator is either directed to collect additional evidence to support the intern's teaching competency or he or she is directed to recommend to the state that the intern be provisionally certified.

INTERN TEACHER TRAINING MODEL



I = INTERN TEACHER
R = RESIDENT RESOURCE PERSON
F = FIELD RESOURCE PERSON
S = SENIOR TEACHER EDUCATOR
C = COUNCIL OF EDUCATORS

This then is our VITAL program. It is now in full operation and serving 108 new vocational teachers in twenty-three schools in Eastern Pennsylvania. These new teachers are being helped in their professional preparation by fifty-four resident resource persons, seven field resource persons, six senior teacher educators, and a program coordinator. Twenty-three councils of educators have assumed the responsibility for their provisional certification.

The Future

We are currently planning to initiate a new pilot project. We hope to work with twenty vocational teachers who have already received provisional certification. Half of this group will be teachers who entered the profession directly from business or industry and the other half will be teachers who entered the profession after completing a four-year vocational teacher education program; they hold a baccalaureate degree.

All twenty of the teachers will get an individualized program that will lead toward their permanent certification as a vocational teacher. Their program, like the VITAL program, will be both field and competency based. Their competency development will be guided by supervisory personnel within their own schools and evaluated by senior teacher educators from the division of vocational education.

If the new pilot proves successful, we will feel justified in placing greater responsibility for vocational teacher education into the hands of local school supervisory personnel.

Ultimately, we hope to offer a competency and field based program to serve all the professional needs of the vocational educator. Plans are now underway to develop such a program for vocational coordinators, supervisors, and administrators.

We, in the division, feel fortunate to have been selected as a test site for The Center's modules. We feel fortunate to have received support from the state and cooperation from local school administrators.

Given the software, the support, and the cooperation needed, we believe we may soon be able to answer one question that has plagued teacher educators for years, namely, does teacher education make a difference in teacher performance?

GLEN OAKS: AN ENVIRONMENTAL SIMULATION FOR TEACHER EDUCATION

By: Jimmy G. Koeninger

The literature abounds with laudatory claims that simulation training techniques have proven effective in providing the teacher in training with a learning environment relevant to his future role in teaching. The simulated learning environment provides the teacher in training the opportunity to apply theoretical concepts to realistic situations that he will probably encounter on the job. Several packages utilizing simulation techniques are available in elementary education and a few at the secondary level. Upon assuming my duties as a teacher educator, I began searching for instructional materials which used simulation techniques for preparing vocational teaching personnel. The Center for Vocational and Technical Education at The Ohio State University is one of the largest and most active developers and distributors of simulation packages for training vocational personnel. However, The Center's initial efforts were focused primarily upon leadership development training for state level supervisory personnel.

Recognizing the need for instructional materials for vocational teacher education using simulation training techniques, The Center contracted with the Department of Vocational Education at the University of Northern Colorado, Greeley, Colorado, to design, develop, and validate a comprehensive simulation training package which could be used for preservice and in-service preparation of vocational teaching personnel. This developmental effort has resulted in a comprehensive simulation package called THE GLEN OAKS SIMULATION.

THE GLEN OAKS SIMULATION was designed to prepare vocational teachers for the secondary level and can be employed in the preparation of all vocational teachers regardless of program area; in graduate or undergraduate courses; or in preservice or in-service activities. The package can be used in its entirety to simulate one year's experience in operating a vocational program or can be fragmented to provide concentration within a particular module. THE GLEN OAKS SIMULATION is divided into modules each focusing upon a different function performed by the vocational teacher. These modules include "Demographic Data," "Program Planning and Public Relations," "Selection, Guidance, and Counseling," "School-related Activities," "Instruction," "Coordination Activities," "Youth Organization," "Professional Activities," and "Adult Education."

The genesis of the GLEN OAKS SIMULATION can be traced to a series of vocational state leadership development workshops sponsored by The Center for Vocational and Technical Education in which The Center developed simulations were used. The workshop instructors, personnel from The Center, conducted an informal survey in these workshops and found an interest in

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Jimmy G. Koeninger, Teacher Educator in Distributive Education, Angelo State University, San Angelo, Texas.

instructional materials using simulation techniques for preparing vocational teaching personnel. The idea of simulation training materials for the preparation of vocational teaching personnel was further explored through a national survey of prominent vocational teacher educators and state supervisors. The results indicated a definite need existed for teacher preparation materials utilizing simulation techniques. A proposal was drafted to develop THE GLEN OAKS SIMULATION and was subsequently funded by The Center in October 1971.

The Developmental Process*

The developmental process encompassed a two-year period of time, represented thousands of hours of efforts, and varying degrees of involvement by approximately 1500 persons. To guide the development of the package, the developers established five major goals. It was felt that THE GLEN OAKS SIMULATION should:

1. provide the participant with a learning environment relevant to his future role as a vocational teacher

2. provide the participant the opportunity to experience a wide variety of tasks performed by vocational teachers

3. include simulated incidents which are realistic, relevant, and meaningful to the participants

4. encourage a high degree of participant involvement and provide an enjoyable learning experience

5. provide the participant the opportunity for practical application of theoretical concepts

The developmental process was supported by a continual examination of the emerging product in light of the established goals. The developers feel that the package has a firm base and progressed toward completion with many input and recycling processes which prompted modifications in the package thereby strengthening the product. Based upon the reactions of the field-testers and other users, it is believed that THE GLEN OAKS SIMULATION is ready for dissemination. THE GLEN OAKS SIMULATION is now in the hands of The Center and will be disseminated through their efforts.

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*Contact Dr. Kendrick L. Spooner, Research Coordinator, Department of Vocational Education, University of Northern Colorado, Greeley, Colorado, for an extensive description of the process used in developing THE GLEN OAKS SIMULATION.

Benefits

Advocates of simulation training techniques do not purpose that simulation, in general, or THE GLEN OAKS SIMULATION, in particular, is the panacea for an effective vocational teacher preparation program. However, the developers, field-testers, and users of THE GLEN OAKS SIMULATION have identified several benefits which they have observed in implementing the package into their teacher preparation programs. These benefits include:

1. A majority of those participating in THE GLEN OAKS SIMULATION exhibited a positive attitude toward the learning experience and felt that the activities were not only informative but were enjoyable.

2. Although little statistical data are available to support this belief, it was felt that THE GLEN OAKS SIMULATION facilitates a greater transfer of learning from the instructional environment to a real situation as compared to other teaching techniques.

3. Time compression is possible in using THE GLEN OAKS SIMULATION thus allowing a sequence of events to be experienced from beginning to end.

4. Participants in THE GLEN OAKS SIMULATION can make decisions in a relatively safe learning environment without threat of censure or bodily harm.

5. Utilization of THE GLEN OAKS SIMULATION allows immediate consequential feedback to the participants.

6. THE GLEN OAKS SIMULATION has been designed so that participants can experience the complexities of group interaction.

7. Participants appear motivated to complete the simulated tasks which are presented to them.

8. Self-evaluation is possible in THE GLEN OAKS SIMULATION and the opportunity to improve one's performance in subsequent trials.

9. THE GLEN OAKS SIMULATION allows presentation of incidents which may or may not occur when training in a real situation such as in the student teaching experience.

10. Observation of those participating in THE GLEN OAKS SIMULATION allows evaluation by the observer in which assessment of performance in a real situation would be difficult, dangerous, or impossible.

11. THE GLEN OAKS SIMULATION allows reproductibility of an event and/or a series of events that could not be repeated and observed otherwise.

12. Involvement in THE GLEN OAKS SIMULATION allows the participant the opportunity to be aware of, investigate, and interact with many of those variables which comprise the total environment of reality.

13. It was observed that decision-making skills and decisions were improved through involvement with THE GLEN OAKS SIMULATION.

14. Users of THE GLEN OAKS SIMULATION expressed their enjoyment in using the package.

15. Since the package is composed of many incidents which in most instances are self-contained and have no relationship to another incident, the package offers total flexibility to the user in that items can be deleted, modified, or added where needed.

Most teacher educators using THE GLEN OAKS SIMULATION or other simulation packages support the benefits presented; however, too little research is available to testify to the statistical validity of these and other assertions. Although the purist has approached simulation with a somewhat skeptical attitude due to the lack of research evidence, those who have used this instructional technique applaud with enthusiasm.

Uses For The Simulation

THE GLEN OAKS SIMULATION was developed to be used in both preservice and in-service teacher preparation activities. Any number of uses can be made of the package by higher education institutions, including:

1. THE GLEN OAKS SIMULATION could be used in a single quarter or semester course. Due to the comprehensiveness of the package, it is recommended that the package be used throughout all vocational teacher preparation courses as a complement to the existing curriculum.

2. THE GLEN OAKS SIMULATION could be used in an intensive one- or two-week workshop program focusing upon whatever module(s) would be appropriate to the objectives of the workshop.

3. THE GLEN OAKS SIMULATION could be used as a performance evaluation device at either the student's entry point or exit from the program. Students could be monitored as they work their way through the several items and performance records maintained.

4. THE GLEN OAKS SIMULATION could be used as preparation for the student-teaching experience.

5. If a sufficient number of qualified student-teaching centers are not available, THE GLEN OAKS SIMULATION could be used as a portion of a student's experience.

6. For students who have not chosen a teaching career in vocational education, THE GLEN OAKS SIMULATION could be used to expose potential vocational teachers to a variety of tasks they will be called upon to perform in a secondary vocational education program.

7. THE GLEN OAKS SIMULATION can be used as an attitudinal change mechanism in situations where the user wishes to modify existing attitudes which may be the result of limited experience or insufficient information.

8. THE GLEN OAKS SIMULATION could be used as a screening device for persons seeking entry into professional teacher preparation programs.

It is encouraging to the developers that THE GLEN OAKS SIMULATION has not only been adopted by vocational teacher educators but general educators as well. Several institutions have reported that guidance and counseling personnel are using the one hundred cumulative record folders and selected in-basket items included in the "Selection, Guidance, and Counseling" module. In addition, the two slide-tape presentations depicting the simulated city and high school are being used by educators as a base for not only class discussion but as data bases for specialized simulations for their institution. The faculty handbook has also been used by administrators as a guide for developing a handbook for their district.

In the context of in-service uses of the package, a local district could use THE GLEN OAKS SIMULATION for the following purposes:

1. THE GLEN OAKS SIMULATION could be used as a complete year long in-service program for vocational educators.

2. THE GLEN OAKS SIMULATION could be used as a screening device for applicants for a vocational education position.

3. THE GLEN OAKS SIMULATION could be used as a summer experience for teachers in a local district who are new to the community and/or who lack professional training in vocational education.

4. THE GLEN OAKS SIMULATION could be used with advisory committees, businessmen, parents, students, etc. for identifying alternative courses of action for solving a particular problem.

5. A local vocational teacher and/or administrator could use portions of THE GLEN OAKS SIMULATION to illustrate the magnitude of the vocational teacher's job.

Simulation Techniques

Several simulation techniques have been employed in THE GLEN OAKS SIMULATION.

In-basket Correspondence

Throughout THE GLEN OAKS SIMULATION participants receive written correspondence. The purposes of this correspondence can be one or more of the following:

1. to provide information and guidance as the participants progress through the simulation activities (a sample "Key Points to Remember" can be found in Appendix A.)

2. to serve as a stimulus to secure the participants reaction to the correspondence (a sample letter can be found in Appendix B.)

3. to simulate desk-oriented work activity

4. to expose the participants to the types of correspondence which might be received by a vocational teacher

Interruption Scripts

A number of scripts are provided the user which can be injected into the simulation activities at the disgression of the user and without prior warning to the participants. The term "interruption script" is descriptive of the technique since the user would actually interrupt the normal classroom activity and request a participant to respond to a question or a statement. For example, the user would direct a student to answer a telephone, real or simulated, and respond to the caller's remarks. A sample interruption script can be found in Appendix C.

Presentation Scripts

In the presentation script, the participant is directed to prepare a short talk, e.g. a five minute presentation, to an audience, e.g., the Glen Oaks Faculty Senate, and respond to questions from the audience. A sample presentation script can be found in Appendix D.

Interactive Scripts

Interactive scripts are role-play situations in which a participant would interact with a written script that has been designed to lead a person through a conversation focusing upon a particular topic, e.g., discussing the development of a training plan for a particular student. A sample interactive script can be found in Appendix E.

Components

THE GLEN OAKS SIMULATION is comprised of several modules which may be used in their totality or modules can be used independently of each other.

Demographic Data

The Demographic Data module is designed to accomplish the following objectives:

1. to enhance role assumption by the participants,
2. to create an atmosphere of realism in the university classroom, and
3. to allow the participant the opportunity to analyze both the community, Glen Oaks, and the high school, Glen Oaks High School, to anticipate problems which might occur in the establishment of a vocational program at Glen Oaks High School, and to prognosticate preventive strategies.

The participant receives his/her role assignment in the initial in-basket item which reads as follows:

> 100 "Having received your baccalaureate degree recently, you submitted your application to several school systems, both in-state and out-of-state, for a position as a secondary vocational teacher-coordinator for the coming school year. You hope to find a position in another state, therefore, you are extremely interested in the newly established vocational program at Glen Oaks High School in Glen Oaks, Buchannan. The state of Buchannan has great appeal to you and you are looking forward to the opportunity to initiate a new cooperative vocational education program.
>
> Following conversations with your teacher educator from whom you received your training, you have decided to accept the position with Glen Oaks High School if it were offered to you."

Dr. Randall Taylor, Superintendent of the Glen Oaks School District, extends a teaching contract to the participant which he requests be signed and returned. Upon receipt of the signed contract by the district, Mr. Irving B. Stewart, Principal of Glen Oaks High School welcomes the participant to the faculty and provides a "Glen Oaks High School Faculty Handbook" for orientation purposes. The table of contents for the faculty handbook can be found in Appendix F.

Following a conversation with Mr. Stewart, Mr. James Thompson, Supervisor, Division for Vocational and Technical Education, welcomes the participant to the state and describes the situation the new teacher will find at Glen Oaks High School:

> 103-A "You are probably aware that vocational education does not hold the status it should in the educational community, particularly at Glen Oaks High School. There will be pressures exerted by parents, faculty members, and others to keep many students in the academic channel. Although I do not desire to paint a portrait of gloom, I want you to be aware of your situation and realize that I will be more than happy to assist you in your endeavors."

In addition, Mr. Thompson encloses a copy of the "Buchannan Policies and Procedures Manual" and selected manpower data.

The Glen Oaks Chamber of Commerce welcomes the new teacher to the community and sends a promotional brochure entitled "Facts About Glen Oaks." An outline of this brochure can be found in Appendix G.

To gain a greater understanding of the city of Glen Oaks and Glen Oaks High School, the participant views two slide-tape presentations. The first slide-tape presentation, "Glen Oaks, Buchannan," was developed by the Glen Oaks Chamber of Commerce for promotional events. The second presentation, "Glen Oaks High School," was produced by the Glen Oaks Student Council and depicts student, faculty, and administrator attitudes toward Glen Oaks High School. The scripts for these two slide-tape presentations can be found in Appendix H and I.

To this point, the participant has only been introduced to the environment and provided numerous items of information which will be used in future tasks.

Program Planning and Public Relations

In the "Program Planning and Public Relations" module, the participant is exposed to a number of simulated incidents which might be experienced by a vocational teacher in establishing and promoting a vocational education program.

The initial task to be completed by the participant is the preparation of a VE120 Program Proposal which must be submitted to the Division for Vocational and Technical Education. Mr.

Thompson has written the school district and told them that failure to submit the VE 120 could jeopardize the district receiving reimbursement monies from the state. Although the new teacher has not yet moved to Glen Oaks, Mr. Stewart notifies the new teacher and tells him that it is his responsibility to begin drafting the proposal so that the final draft can be submitted during the first week of school. The stage is set when the participant is told to assume he has arrived in Glen Oaks and directed to report to the principal's office for an initial interview which the participant role-plays via an interactive script.

Additional tasks which the participant is called upon to perform in this module are:

1. identify materials, equipment, and supplies needed to support the instructional program but remaining within the prescribed budget

2. present a five-minute talk at the first Faculty Senate meeting of the year and respond to questions from individual faculty members regarding the newly established vocational education program

   Sample questions are:

   204-E "First, let me welcome you to Glen Oaks High. . . I am Miss Brooks–my specialty is ancient civilizations–Can we as faculty make recommendations for students to enter your work program? Believe me, I have some students in my classes I'd like to get rid of."

   204-H "You probably intend to promote your classes to secure an adequate enrollment level–won't you be pulling students away from the college preparatory courses–Oh, forgive me–the name is Ward–I'm in the Mathematics Department."

3. prepare an article for the local newspaper describing your vocational program

4. design a model classroom facility for your vocational program including a floor plan complete with dimensions, location of instructional, office, and operational equipment

5. identify persons for membership on the advisory committee, prepare a letter to be mailed to prospective committee members inviting them to serve a term, develop an agenda for the initial organizational meeting, and respond to questions from advisory committee members

6. respond to questions from faculty members during a visit to the faculty lounge

   Sample questions are:

210-B "I'm glad you dropped in this lounge this afternoon because Susan Hawkins is enrolled in your coop program and she has continuously failed to complete her homework assignments. When asked about her assignemtns, she shrugged her shoulders and indicated she had to work such long hours. Students should be in high school to learn how to succeed in this world. They will begin working soon enough. I just don't think your program is allowing them to learn what they will need in later life.

210-H "Why do the vocational programs receive so much federal dollars? I've seen too many programs ruined because of federal intervention. Just what percentage of your funds do come from the federal level?"

Selection, Guidance, and Counseling

One of the most important tasks performed by a vocational teacher is the recruitment and selection of students. In this module, the participant is told that the Glen Oaks counselors have identified 100 students who have expressed interest in the vocational education program. No attempt was made to screen the applicants prior to the vocational teacher's arrival. Each participant in the simulation is directed to select students for his vocational program. The selection process is limited to a review of the cumulative record folders for each of the 100 students who have indicated an interest in the vocational program. A sample cumulative record folder can be found in Appendix J.

Additional tasks which the participant is called upon to complete are:

1. develop a list of occupational areas in which students can work and be enrolled in the vocational education program being established

2. provide a summary of occupational opportunities available for those students who complete the vocational education program

3. identify selection criteria used for screening students for the program

4. design an application blank for students who are interested in the vocational education program

5. prepare a list of guidance materials appropriate for the occupational preparation area

6. develop a pre-enrollment promotional campaign for student recruitment

In addition, the participant is exposed to a variety of rather demanding scheduling, guidance and counseling, and discipline problems. For example, the participant will receive a letter from a parent, Mr. Ralph Glenn, which reads as follows:

314 "I am writing to you as a concerned parent. This concerns Pat's job which requires her to work on Sundays. We are concerned that Pat could be losing touch with family life because of her present situation. We have always been a close family, and Sundays have always been a family day. . . . . We feel that Pat has lost touch with us. She seems to be a different person since having a job. She does not communicate with her mother or myself at all any more. Pat's attitude is one of resentment and disrespect toward us. . . . We need a solution soon, before we lose our daughter."

School-related Activities

In this module, the participant is exposed to many of the everyday school activities which many times are not covered in a teacher preparation program but yet are significant tasks. A few of the tasks which the participant will be called upon to perform are:

1. present a five-minute talk to students as if it were the first day of class and respond to their questions via an interactive script.

   Sample questions are:

   400-E "Do you get us our jobs?"

   400-G "Ed Cox is my name and I work Thursday, Friday, and Saturday and sometimes on Sunday for my dad. Is it OK if I work for my dad?"

   400-P "What if I don't like the job you get me. Can I quit whenever I want?"

2. design a procedure for collecting monies from students for textbook rentals, organization dues, consummable supplies, etc.

3. prepare a list of consummable supplies needed for the program.

4. devise a method for securing textbook fees, etc. from students who fail to pay them on time.

5. determine whether you want to maintain the work permit records for the entire school.

6. determine whether to accept a donation of a videotape recorder from a local businessman for your program.

7. determine whether or not you want to co-sponsor the Glen Oaks High School Student Council.

8. determine an alternative plan of action when it is discovered that a field-trip that has been scheduled for weeks must be cancelled because the vocational teacher did not receive proper clearance.

Instruction

In this module, the participant is confronted with situations in which the following tasks must be accomplished:

1. develop a course outline for each class taught.

2. develop a list of instructional techniques which can be appropriately and effectively utilized in the classroom.

3. design a lesson using the instructional systems approach.

4. describe the involvement of students, parents, employers, faculty, administrators, etc. which should be considered in the development of the instructional program.

5. develop a list of instructional materials, textbooks, etc. which should be ordered and placed in the instructional materials laboratory for use by students enrolled in the vocational education program.

6. discuss your ideas regarding the implementation of the career education concept into the Glen Oaks School District.

Coordination Activities

The module is probably the most comprehensive of all the modules in THE GLEN OAKS SIMULATION. The participant is called upon to perform tasks which encompass much of the coordination function. A few of the tasks which the participant is called upon to complete are:

1. present a fifteen-minute talk to the Glen Oaks Chamber of Commerce and respond to questions following the presentation.

Sample questions are:

600-J "I have a question. . . if the kid doesn't work out, can I replace him whenever I want or am I obligated to him for a specified period?"

600-L "Are the students in your program potential dropouts? Is that why they are working as well as going to classes?"

2. design an overall promotional plan for promoting the vocational education program in the community.

3. design a form which can be used for recording job requests which are called into the high school.

4. seek solutions to problems, such as:

606 "It has been reported that a few students have interviewed for part-time jobs in the community and told the employers that they were enrolled in the vocational education program. However, they are not enrolled in the program. The participant is called upon to suggest a course of action that would eliminate misrepresentation of this nature."

5. develop plans for a training sponsor orientation training session.

6. respond to a concerned citizen's letter to the principal which reads as follows:

608-B "The other day I was out ordering some stationary for my business, when I noticed your cooperative education teacher visiting with someone at Smother's cafe. This did not distrub me except that when I returned the next day to deliver a package to one of our accounts nearby, and guess who I saw in Smother's again? As a taxpayer I became a little concerned. Are we actually paying teachers to go out and drink coffee all day? All we hear is the over-crowding of our classrooms and a need for more money to hire more teachers. Maybe we should start solving the problem by having all of our teachers teaching instead of visiting."

7. conduct an interview with a prospective training station sponsor for the purpose of establishing initial rapport via an interactive script.

8. explain the cooperative education program to a prospective training station sponsor via an interactive script.

9. convince an employer to provide a training station via an interactive script.

10. discuss the training agreement with a training station sponsor via an interactive script.

11. design a training plan for a particular student in discussion with the training sponsor via an interactive script.

12. respond to employer's objectives to working with the vocational education program and/or particular students.

13. determine whether you want to admit a student into your program who does not necessarily have an occupational interest in the field for which you are preparing students.

14. respond to irate employers who feel the vocational teacher has been unfair to them.

15. interpret evaluations received from training station sponsors.

16. prepare a student for a job interview.

Youth Organization

The participant is called upon in this module to establish a vocational youth organization for the vocational education program at Glen Oaks High School. In the initial in-basket item, the participant is directed to present an overview of the vocational youth organization and respond to student questions via an interactive script. Sample questions are:

700-B "Will all students be required to join the club or is it just for those interested?"

700-L "How do we get to go to the conventions–boy, that would be a blast."

Since a majority of the students have expressed an interest in forming an organization, a group of students was designated as a sterring committee to initiate plans for the organization. The students on the steering committee have scheduled a meeting with the vocational teacher to discuss questions they want answered. Sample questions are:

701-G "You told us about dues. . . boy, they're expensive. Some of us will have trouble paying our dues. The biggest chunk of money is for those that are for state and national. Why do we even have to pay those–what good will it do us?"

701-F "Some of the kids have been wordering about the contests they can enter. They had talked with students at other schools and were wondering how a person gets to enter a contest. The contests have seemed to turn some of the kids on."

Additional incidents focus upon the following topics: Fund-raising, developing a program of work, complaints by school personnel toward the vocational youth organization and its activities, state competitive events, disciplinary action required at the state youth organization conference, and planning for an employer-employee banquet.

Professional Activities

In this module, the participant is called upon to perform the following tasks:

1. determine whether to affiliate with professional associations appropriate to the vocational education program.
2. respond to a questionnaire from an outside agency.
3. prepare a personal resume.
4. submit an article for publication to a professional journal.
5. determine whether to participate in the parent-teacher association.
6. determine whether to accept a student-teacher from the university.
7. determine whether to participate in the local United Fund Campaign.
8. react to a proposed teachers' walkout sponsored by the local teacher's union.
9. design a promotional plan for use during National Vocational Education Week.

Adult Education

In this module, the vocational teacher is called upon to establish an adult education class. The incidents have been designed as to lead the vocational teacher through the steps to consider in establishing an adult education class in Glen Oaks.

SUMMARY

It is an obvious conclusion that the ultimate success of vocational education is directly related to the effectiveness of the instructional personnel that compose the total program. As vocational teacher educators, we must encourage the development of a more efficient, innovative, and effective teacher preparation program.

If the teacher educator is earnest in his desire to employ simulation techniques in the vocational teacher preparation program, a review of simulations developed in the educational arena in general and in vocational educational in particular is strongly recommended. A bibliography of simulations and writings can be found in Appendix K to aid your search. In reviewing previously developed simulations the teacher educator can identify strategies that have proven successful by developers and apply this knowledge to simulations of his own. The lack of commercially developed, widely distributed simulation packages for vocational teacher preparation demands that the innovative teacher educator develop simulation materials for his instruction. If you would be interested in knowing more about THE GLEN OAKS SIMULATION, I suggest you contact the developers, or the field-testers, or The Center for Vocational and Technical Education for additional information. A list of resource persons who have used THE GLEN OAKS SIMULATION can be found in Appendix L.

In view of the increasing interests in and use of simulation techniques, the following suggestions are offered for consideration:

1. That vocational teacher educators investigate available simulation packages and incorporate them into their instructional program or use them as models for further development.

2. That potential users of simulation materials seek training in their use that may be offered by producer institutions, e.g. The Center for Vocational and Technical Education.

3. That individual developers of simulations review the developmental process followed in THE GLEN OAKS SIMULATION.

4. That critical functions in vocational education instruction, administration, and support be identified, and where appropriate, simulations developed to prepare for performance of such functions.

5. That a coordination agency responsible for dissemination and general training of simulation users and developers to prevent unnecessary and costly duplication of developmental efforts be established.

AN INTERACTION SIMULATION: COORDINATED LOCAL-STATE VOCATIONAL EDUCATION PLANNING

By: Lucille W. Patton

As vocational-technical teacher educators I'm sure you're aware of the fact that The Center for Vocational and Technical Education at The Ohio State University is one of the largest and most active developers and distributors of simulation packages for training vocational-technical personnel. The first of these, Research Series No. 51, *Supervision and Decision-Making Skills in Vocational Education: A Training Program Utilizing Simulation Techniques*, was written by Dick C. Rice and Richard F. Meckley and published in March of 1970. State supervisory personnel and vocational-technical teacher educators were invited to Columbus to an initial simulation conference for the purpose of exposure to this particular simulation.

Subsequent simulation conferences were planned for the purpose of exposing professional development leaders to the second of such simulations–Research Series No. 52, *Simulation Training in Planning Vocational Education Programs and Facilities*, developed by Richard F. Meckley, Ivan E. Valentine, and Zane McCoy, and published in April 1970. The third such simulation, Research and Development Series No. 48, *An Interaction Simulation: Coordinated Local-State Vocational Education Planning*, was completed by Darrell L. Ward and Jimmy G. Koeninger in July 1971, and received exposure to vocational-technical education leaders through a series of conferences. It is this last simulation–"Coordinated Local-State Vocational Education Planning," toward which we are now going to direct our efforts.

Those of us who were fortunate enough to be invited to various simulation conferences went back to our home states, state departments or universities with an obligation to The Center for Vocational and Technical Education–we were charged with the responsibility of conducting similar simulation conferences within our states. Dr. Lloyd Wiggins, Oklahoma State University, and I were selected to attend Center sponsored conferences in 1971 and 1972. I attended a Center-sponsored conference in April 1972, and returned to Oklahoma to work with Dr. Wiggins in convincing our associate state director of Vocational-Technical Education that the best way to enlarge the effectiveness of the use of simulations as a teaching technique was to acquaint vocational-technical teacher educators with currently developed simulations. We were able to secure the funds to conduct a teacher-education simulation seminar away from our various campuses between the fall and spring semester of the 1972-73 school year. We had a surprisingly complete involvement at a time during which teacher educators might ordinarily be enjoying a winter vacation.

During this two-day conference we involved teacher educators from all Oklahoma institutions offering any type of vocational-technical teacher education in these three simulations as well as the

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Glen Oaks environmental simulation that Dr. Koeninger has just explained to you. The Center furnished us with an adequate supply of Series 51, 52 and 48 for all teacher-educator participants; and since Glen Oaks was not yet ready for dissemination, Dr. J. W. Weatherford and I were fortunate enough to have adequate materials that could be furnished to key teacher education personnel in each institution involved.

The response that Dr. Wiggins, Dr. Weatherford, and I received for our efforts in conducting this teacher education seminar was overwhelming; and we've been able to repeat this performance one other time during the 1972-73 academic year with a state curriculum department sponsored teacher education conference. In addition to gaining knowledge about varying teaching techniques, these conferences have served to provide a cohesiveness between teacher educators of five institutions and representative of all occupational service areas.

Koeninger and Ward, in their article, "Simulation in Vocational Teacher Education," listed what they referred to as an eclectic enumeration of simulation users' observations—their enumeration included nineteen such observations. Since Research and Development Series No. 48 is an interaction simulation, it is my belief that of their enumeration of the effectiveness of the simulation technique, the following most aptly apply to Series No. 48: (1)

1. Simulation experiences provide immediate consequential feedback to the participants when decision-making tasks are incorporated into the instructional plan.

2. Simulation makes it possible to compress time so that a sequence of events and their relationships can be experienced.

3. Interaction simulations allow the participants the opportunity to experience the complexities of group interaction and inter- and intra communicative techniques.

4. Self-evaluation is possible through simulation experiences and the opportunity is provided to improve the participants' performance in subsequent trials.

5. Decision-making skills are improved through simulation involvement.

This third package of The Center simulation materials is different from the first two in its format and operating mannerism and to our knowledge, is somewhat different than any other organization's simulation materials. The package features in-basket and decision-making problems of the type found in the two previously discussed packages, however, the situation is designed wherein state and local vocational education personnel must work together in an interactive type of decision-making process. The simulation problems featured in this package include:

1. Determining local and state responsibility in program planning,

2. Utilizing organizational tools and methodologies for planning,

3. Assessment of community vocational education needs, and

4. Identification of the socioeconomic influences on vocational education within a community. (2)

The interaction simulation involves not one but seven to thirteen separate roles. Additionally, the multiple roles and the linear programming of the exercises make this simulation somewhat more structured and less adaptable to fragmentation than earlier works of The Center. The simulation is designed to provide local and state vocational education planners simulated experience beginning with initiation of the planning process through development of a proposal to establish an area vocational education center. (3)

The interaction simulation package consists of ten publications and includes:

Simulation Director's Manual (Book One)
A Compendium of Background Information (Book Two)
Simulation Exercises: Dr. M. P. Conroy (Book Three)
Simulation Exercises: D. R. Drake (Book Four)
Simulation Exercises: L. C. Foster (Book Five)
Simulation Exercises: Dr. R. A. Miller (Book Six)
Simulation Exercises: J. T. Reed (Book Seven)
Simulation Exercises: F. D. Terry (Book Eight)
Simulation Exercises: Dr. J. D. Williams (Book Nine)
Simulation Exercises: District Coordinator (Book Ten)

The simulation features: Determining Local/State Responsibility in Program Planning, Organizational Tools and Methodologies for Planning, Community Vocational Education Needs Assessment, and Identifying Socioeconomic Influences on Vocational Education.

Specific behavioral objectives will be dependent upon the workshop director. The following are representative of behavioral outcomes that the simulation can facilitate.

1. Describe local and state responsibilities for vocational-technical education program development, organization, implementation, and evaluation.

2. Devise a PERT network, conduct a DELPHI research panel, and develop other tools for the purpose of program development and organization.

3. Develop articulation patterns for secondary and post-secondary institution's vocational education offering.

4. Devise a community survey that will depict local conditions relating to program planning.

5. Identify socioeconomic influences that have either a positive or negative effect on the development of vocational-technical education programs.

The demographic setting for this simulation includes three neighboring school districts in Washington County, State of Lafayette. Lafayette is a midwestern state with a variety of topographical features and an extensive river system. The state is highly industrialized but is also a prime producer of agricultural products. Washington County is nearly typical of the state. (4)

Four months ago the superintendents of the Madison, Rome, and Hillsdale school districts requested the state director of vocational education to survey Washington County and ascertain the needs for an expanded program in vocational-technical education. The survey was made by the Division for Research and Development of the Bureau of Vocational-Technical Education. The Washington County Survey Summary Report has recently been made available to local and state planners. Recommendations for future action were not included; however, the Bureau of Vocational-Technical Education has offered further assistance if desired by the local districts. (5)

In previous planning sessions the three school districts' superintendents have discussed the possibility of an interdistrict cooperative program in vocational education. They have reviewed a case study report concerning the development of such a joint program in the neighboring state of Buchannan. They have concluded that there is a definite need for providing additional vocational and technical education in their school districts. With knowledge that the participants in this interaction simulation have of the state of Lafayette and Washington County, they should be able to make decisions leading to development of a vocational education program which meets the needs of the people and is also within the financial capabilities of the community.

Participants in the interaction simulation will assume the following roles:

Dr. M. P. Conroy, state director of Vocational Education, is very eager to expand and improve vocational education in the state; he has taken a personal interest in the development of an inter-district cooperative vocational education program.

Dr. J. D. Williams, assistant state director of Vocational Education, heads the division for Research and Development. The Washington County Vocational-Technical Education Survey was conducted by personnel in his division.

J. T. Reed, is coordinator for the southeast section of the state of Lafayette, which includes Washington County. Additional coordinators may assume roles in simulation as the number of participants dictate.

The local education personnel are represented by:

Dr. R. A. Miller, superintendent of the Madison School District. With 2500 students in the district in grades nine-twelve, the school has a vocational education program, but the superintendent is interested in exploring ways in planning the expanded vocational education program.

L. C. Foster, is the director of vocational education at Madison High School. He is the only vocational director in the three school districts involved in the exercise, so the superintendent agreed that Foster should be asked to help in planning the expanded vocational education program.

D. R. Drake, is the superintendent of Rome School District which has a total of 797 students in grades nine-twelve. The school has a limited number of vocational education offerings.

F. D. Terry, is the superintendent of Hillsdale School District which has 687 students in grades nine-twelve. The school has a very limited number of vocational education offerings, and the superintendent serves in several supervisory roles in the school system.

Figure 1 presents the major planning spheres and combinations portrayed in the simulation experience. (6)

Planning Sphere	Representation
A - -	Dr. M. P. Conroy, state director
B - -	Division for Research and Development staff (Dr. Williams and the district coordinators)
C - -	Represents the interaction between Dr. Conroy (Area A) and the research and development staff (Area B)
D - -	Superintendents of the Madison, Hillsdale and Rome School Districts and the Madison High vocational director
E - -	Represents interaction between state director (Area A) and the superintendents (Area D)
F - -	Represents interaction between research and development staff (Area B) and superintendents (Area D)
G - -	Total interaction of all participants during local-state planning conference.

Two simulation techniques have been incorporated into the instructional design – in-basket exercises and interaction sessions.

The purposes of the in-basket exercises are:

1. To provide information and guidance as the participants progress through the simulation activities.

2. To expose the participants to those types of communications that might be received by administrators in their particular role.

3. To simulate administrative desk-oriented work activity.

Types of action resulting from in-basket exercises could take the form of:

1. Letter or memorandum

2. Telephone call

3. Report or position paper

4. Personal visit

5. Record personal notes

6. Other

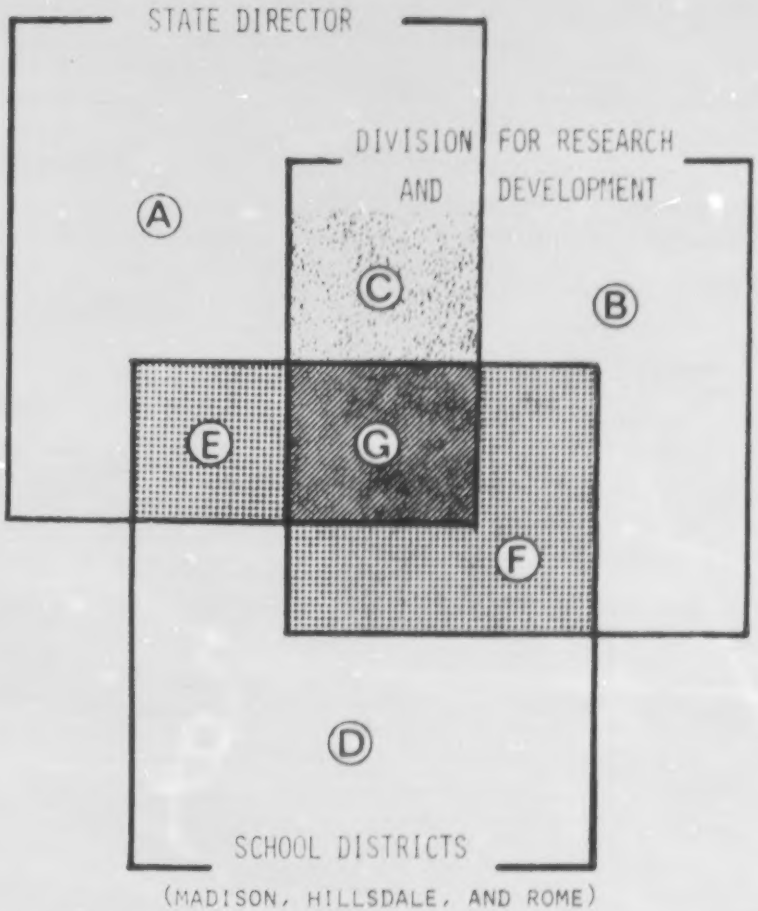
Samples of forms (problem analysis and communication) are included in the simulation director's manual. Cues to action of in-basket items are given through the in-basket item code: LS (local-state); L (Local); S (State); and I (Individual).

Also included in the simulation director's manual is a suggested room arrangement, designed for eight participants. Workshop directors should not, however, feel "married" to this arrangement. As the number of participants increases, resulting in a greater number of local-state groups, the greater the demand upon innovative facility planning. At a regional workshop sponsored by the U.S. Office of Education, forty-five people participated in the simulation, forming five nine-member groups with each group assigned to one room.

The simulation director's manual also provides a suggested agenda for leadership development workshop which is designed to cover three eight-hour days.

As the Oklahoma teacher educators were exposed to the various facets of this interaction simulation, they were asked to consider its implications for teacher education. The group unanimously agreed that in a teacher education situation, the interaction simulation would best fit in educational administration courses at the graduate level—educational specialist or doctoral. Also, these teacher educators agreed with the simulation designers that this simulation could not be fragmented—that it must be conducted in its entirety to be effective.

They also strongly recommended that the simulation be preceeded by exposure to theoretical concept and design so that the interaction simulation did not result in a "pooling of ignorance." It was suggested by the Oklahoma State University education dean that the interaction simulation might be used as a performance based criteria for the decision-making and interaction effectiveness



LOCAL-STATE PLANNING SPHERES

Figure 1

of doctoral candidates in EPDA 552 programs. EPDA doctoral candidates who took part in the simulation exercises were not as enthusiastic about this use of the simulation as was the education dean.

To test the effectiveness of the interaction simulation, two workshops were conducted—one in Denver, Colorado, in May 1971; and the other at the University of Arkansas, Fayetteville, Arkansas, July 1971. Thirteen research questions were developed. The results of the research have been published by Drs. Ward and Koeninger as Research and Development Series No. 73, *Evaluation Report and Interaction Simulation: Coordinated Local-State Vocational Education Planning*, May 1972.

Some significant results of the research are:

1. Years of state-level experience of the participants did not cause a significant difference; therefore, the simulation experiences can be employed with groups with varying levels of experience without reduction of effectiveness.

2. In response to the question, "Will participants' functional job responsibility have a differential effect upon their reaction to the simulation experiences?" The conclusion was that the interaction simulation package is equally effective for state-level administrators, supervisors, and other state-level personnel.

3. It was also concluded that the simulation package can be employed for both local and state-level personnel on either an in-service or preservice basis.

4. On the basis of the opinions of both the participants and the instructional staff, it was concluded that the simulation package did provide a realistic learning environment in which the knowledge, skills, and techniques of vocational education program planning can be applied. The extensive development process also insured a high degree of realism regarding the in-basket items and interaction sessions, since they were based on actual case studies.

There were also some recommendations that would be significant to those of you who are anticipating the use of this interaction simulation as a part of preservice or in-service teacher education. These include: (8)

1. Book One should be distributed to the workshop participants at least one week prior to the workshop. In addition, an extensive presentation should be offered that would encompass the contents of Book Two. A great amount of demographic background information and operational procedures is provided in Book Two and may be difficult to digest without some explanation and clarification.

2. Although these materials are being distributed for general use, workshop participants strongly recommended, that, because of their somewhat unique nature, any individual or organization contemplating their use obtain "training for use" of the materials. Training for use might be accomplished through:

a. Attendance at a Center-sponsored workshop utilizing the materials.

b. Apprenticeship with an experienced instructor who is conducting a workshop utilizing the materials.

c. Extensive consultation and individual instructor preparation with an individual approved by the state leadership and/or dissemination specialist at The Center.

d. Previous experience in conducting simulation training sessions.

3. Those persons who play identical roles should be provided the opportunity to meet together to discuss alternative solutions to the perceived problems.

The evaluation report is much more extensive than time permits for additional comments. You should obtain a copy from The Center so that if you contemplate conducting a workshop using the interaction simulation, you'll have the benefit of the thinking of the participants and directors who researched the pertinent areas of concern.

In summary, I would reenforce the beliefs of the two simulation designers—Darrell Ward and Jim Koeninger—that "The primary instructional goal of any comprehensive simulation package should be to develop more skillful, knowledgeable, and effective vocational personnel." (9) We should not adopt the simulation technique in teacher education as a substitute for other effective instructional techniques; we should not abdicate our roles as resource personnel to our students and expect the use of simulation techniques to cover the total education process. We should be concerned with instructional methods and techniques that involve students in the learning process and bring reality into the classroom.

As teacher educators it would be unrealistic to assume that we could develop as sophisticated and comprehensive simulation designs as those available through The Center for Vocational and Technical Education, The Ohio State University. Therefore, we should be constantly alert to alternate methods of increasing the awareness level of groups with whom we work—whether the groups be undergraduate students in preservice teacher education classes or in-service administrative personnel intent on improving their effectiveness in the decision-making, personnel administration process.

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5. *Ibid.*, p. 16
6. *Ibid.*, p. 20
7. Koeninger, Jimmy G., and Darrell L., *Evaluation Report, and Interaction Simulation: Coordinated Local-State Vocational Education Planning.* Research and Development Series No. 73, pp. 17-24.
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MULTI-MEDIA PROGRAMS AND SIMULATED CASES FOR PRESERVICE AND IN-SERVICE DEVELOPMENT OF TEACHER COORDINATORS FOR COOPERATIVE PROGRAMS SERVING DISADVANTAGED AND VOCATIONAL STUDENTS

By: Elaine F. Uthe

Introduction

The cooperative method of instruction is specifically designed to assist the student in bridging the gap between school and work by correlating instruction with application on the job. The cooperative method involves the student in both a part-time job and related instruction while he is also enrolled in other required academic courses. This interweaving of a meaningful work experience with formal instruction enables the student to apply his learning in a realistic setting and affords him an opportunity to acquire needed job knowledges, skills, understandings, and attitudes. The cooperative program assists the student in making the transition from being a student to becoming a productive adult worker; it is especially useful as an educational tool in the area commonly referred to as "worker adjustment."

Furthermore, the cooperative program approach was singled out in the Vocational Education Amendments of 1968 as a category for funding; it was recognized by the National Advisory Council for Vocational Education as one of the most successful methods of providing vocational education to a wide variety of students. The cooperative program approach seems to be particularly well suited to serving the individual needs of the students while they are enrolled in the program. It also seems to meet their needs in terms of job placement after graduation and for relatively long, continuous periods of employment. Consequently, the amendments of 1968 specified two objectives for the cooperative program approach:

1. initiation of new cooperative programs and the expansion and improvement of existing programs, and

2. provisions for serving a more diverse and larger group of the population—specifically the disadvantaged students.

The Project

This project was designed to develop teacher-education materials for the development of teacher-coordinators for cooperative occupational programs and for cooperative programs for the

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disadvantaged. The materials relate to two specific topics: (1) coordination techniques and (2) individualized related instruction. The materials may be used for preservice and/or in-service development, and they may be used in either an individual study carrel or with class groups.

The project materials include multi-media programs (slide/tape presentations combined with a student notebook) and simulated cases (See a later section for a description of the simulated case technique).

The Teacher-Coordinator

The teacher-coordinator is the pivotal factor in developing and maintaining a high-quality cooperative program in any occupational area. The development of teacher-coordinators, therefore, should include:

a. principles and philosophy of using work as an educational tool,

b. principles and philosophy of vocational education,

c. procedures for organizing and operating a cooperative program,

d. techniques for coordinating and designing related instruction,

e. recent, relevant and related work experience in the specific occupational cluster in which he is teaching and coordinating.

While the learning of "theory" is essential, some system for providing realistic "experiences" during the learning process should be included. These project materials are an attempt to inject those realistic decision-making trials into the preparation of teacher-coordinators (or for the in-service development of experienced coordinators). Some of the multi-media materials are, of course, informational in nature, although great effort has been made to involve the learner in an active role during such instruction.

The Coordination Call

Coordinating may be defined as the process of persuading two or more persons to act together in a smooth, concerted way. These words very aptly describe the nature of the coordination calls made by the teacher-coordinator.

The major purpose of the coordination call is to permit three parties—the job supervisor, the student, and the teacher-coordinator—to join together in a common plan of action, to act together in a smooth way, and to cooperate in the development of an efficient, knowledgeable worker. At times the coordination call involves a two-party communication between the teacher-coordinator

and the job supervisor at the work station or between the teacher-coordinator and the student-learner in the related instruction class. Preferably, the coordination call is a three-way communication experience between the teacher-coordinator, the job supervisor, and the student-learner. In either experience, the teacher-coordinator is the vital link in the "cooperative" method of instruction—the communication link between the job experiences and the in-school related instruction.

Coordination responsibilities fall into three major categories: (1) administrative calls, (2) placement calls, and (3) student-oriented calls. Although it is easy to define these types of coordination calls, a precise division does not usually exist in practice as the teacher-coordinator may have more than one purpose for making a specific call.

The administrative calls may involve these and many other objectives:

a. evaluating the firm as a work station in general,

b. selling the cooperative program to the firm,

c. developing good public relations for the program,

d. collecting suggestions for curriculum and instruction,

e. researching trends and issues,

f. developing training expertise of the job supervisor.

The placement calls involve (a) evaluation of a specific firm as a suitable training station for a specific student and (b) developing a training agreement and a training plan with that firm for the student. Also, during the placement calls the coordinator (c) works with the job supervisor in developing an understanding of the purposes of the cooperative program and a positive attitude toward young, beginning workers.

The student-oriented coordination calls may have many purposes, such as observation of the student at work, evaluation of his progress, and handling "problems."

The teacher-coordinator must be adept at eliciting information through interviewing and observing during any type of coordination call. An evaluation call in which the coordinator does no more than ask the job supervisor for a general statement about the student's progress does little to provide the coordinator with viable information for assisting the student in improving. Therefore, the teacher-coordinator must be skillful in asking appropriate questions and in pinpointing and interpreting the comments of the job supervisor (and the student). Such questions should be logically tied to the training plan, the student's job tasks and duties, and the related instruction. Specific instances should be elicited from the job supervisor to illustrate "good" and "weak" points about the student's progress. Evaluation should be continuous—that is, sought at almost

every coordination call; however, there should also be a periodic evaluation made—one that covers a longer span of time and that looks at the prior achievement and the amount of growth.

The observations made (either the comments from the job supervisor and/or other workers or the visual observance of the student) during the student-oriented calls provide a focal point for the coordinator's effort to provide realistic, relevant, job-based related instruction at school. Although job supervisors identify weak areas of the student-learner, the coordinator needs to actually physically observe the student-learner at work in order to design specialized training in overcoming these weaknesses. Therefore, the coordinator must become adept in making observations that are useful for instructional purposes—task analyses, motion analyses, job analyses, attitudes, etc.

The coordinator plans related instruction projects for the student-learner to complete at school (or in combination with the job) and then makes return calls to observe the student-learner applying the learning on the job. It is not sufficient for the coordinator to teach once, observe once, and then never comment about that particular topic again—neither is it sufficient to evaluate the student-learner on the basis of one visit per term.

The new coordinator needs as much knowledge about or experience in making these three types of coordination calls and the decisions about each type as possible during the teacher-training period. Too, the experienced coordinator needs a refresher to review and upgrade his coordination techniques periodically in order to maintain a high-quality program.

Development Of The Project Materials

The project began in September 1970, with a preliminary stage to further develop the design of the project and ended on June 30, 1972, with the final revisions of the multi-media programs and the simulated cases.

Areas of Concentration

During the proposal stages three areas or functions of the teacher-coordinator were singled out for special emphasis in the teacher-education materials:

1. diagnosis and analysis of students during recruitment time,
2. analysis of the student in the job setting, and
3. design of individualized related instruction based on the coordination calls and observations.

In addition, several programs were especially designed for teacher-coordinators working with the cooperative programs for the disadvantaged, although many of the same coordination techniques are employed in these programs as in the cooperative occupational programs.

Finally, the areas of concentration are supported by both informational-type programs and by application exercises such as decision-making trials.

Guidelines for Determining the Format of Materials

During the initial phases of the project, several guidelines were developed to assist in determining the instructional techniques and the format:

1. The materials should be programmed as much as possible for use in either an individual study carrel or by an instructor other than the project director.

2. The materials should simulate realistic coordination situations as much as possible. For this reason, the simulated case technique was selected as one of the instructional tools in this project.

3. The materials should provide as much active participation as possible for the learner, especially in the form of "hands on" experiences in making decisions and interpretations. Therefore, although some of the programs are instructional in nature, they include a self-administered quiz, a written exercise or two, a decision-making trial, or a combination of all three. In some programs the entire emphasis is placed on the decision-making trial.

4. The instructional programs should be planned with the most effective media possible (within cost limitations). The use of slide-tape presentations seems to be most effective although "motion" could have been used in two of the programs.

The project materials, therefore, include slide-tape presentations supported by a student notebook, some audio tapes supported by the notebook materials, some reading materials, and the instructor's manuals.

Input

Before any specific topic was selected, the project director and the staff reviewed articles, textbooks, state plans and guidelines, and research projects to discover specific areas of teacher-coordinator training for a potential topic.

Although many projects start with a questionnaire survey that is sent to a relatively large number of individuals, the "idea-gathering" research for this project was largely channeled or directed to "individual opinions." Furthermore, much of the research was conducted at the local school sites by tape recording interviews with teacher-coordinators, vocational directors, and school administrators. The interviews were deliberately unstructured so that the individual has a free rein

in expressing his own ideas, although some key questions were asked in each interview. The tape recording of the interviews apparently did not inhibit the interviewee's sharing of ideas.

The major objective of the project was to build simulated cases to provide a "different" version of teacher-education materials. However, it was also necessary to build some "enabling" materials—some programs to provide theory, for instance. Therefore, the first program is entitled "What is a Cooperative Program?" The second one explains the "Program for the Disadvantaged." Three slide-tape presentations outline the functions of the coordinator through an explanation of the forms used by the coordinator in recruiting and selecting students, job placement, observations, evaluation, and others. The simulated cases focus on the recruitment and selection decisions and the job problems of the student.

A set of nineteen forms was prepared to fit the project and the simulated cases.

At the beginning of the second year of the project, another round of interviews with teacher-coordinators and others was used to gather further input. This interviewing procedure was often used throughout the development of the simulated cases to check on the "truthfulness" and "realism" of the case and to provide additional input and ideas for revisions.

Specifications

After a tentative list of topics for the project was determined, specifications for each program were made in terms of general objective(s), outline of major ideas, the media form, the instructional format, and the need for exercises, tests, and self-evaluation procedures.

Production

During the first year six slide-tape presentations were fully developed, with projections for additional ones. The project staff worked closely with the Instructional Media Center at Michigan State University and employed the services of a script reviewer, the graphics department, and the sound recording studio.

An additional three slide-tape presentations were developed in the second year, in addition to a special audiotape/reading program. Throughout the second year much emphasis was placed on the development of the notebook materials and on field testing the materials.

Throughout the two years of the project a series of seven simulated cases was developed and field tested.

Field Testing the Project Materials

Two stages of field testing were built into the project: (1) preliminary field testing and (2) classroom field testing. In the preliminary field testing either the staff and/or outside individuals reviewed the materials for accuracy, quality, content, and effectiveness in conveying the idea. The obvious inconsistencies were revised immediately.

The classroom field testing was conducted by Dr. Norma Bobbit, Home Economics Education, College of Human Ecology, Michigan State University, and by Mr. Wells Cook, teacher-educator, Business and Distributive Education, Central Michigan University. The project director also used the materials in an undergraduate course at Michigan State University.

The materials were used in both graduate and undergraduate courses relating to the organization and administration of cooperative programs and coordination techniques. The students in the three classes represented a variety of occupational programs—agriculture, distributive education, office occupations, health, home economics, trade and industry, etc. The examples used in the teacher-education materials were from the office occupations areas, but this fact did not present a problem to the others in understanding the coordination techniques. When exercises required occupational or technical content, each student simply worked within his own occupational speciality.

The class groups, and those involved in individual viewing, were asked to point out errors, identify areas that were not clear, and suggest additions or deletions. The two instructors were asked to make suggestions for revisions affecting content, quality of presentation, and effectiveness in instruction.

All the suggestions were carefully reviewed and formed the basis for corrections and revisions made during spring term, 1972.

Some of the advantages of the multi-media programs are:

a. provide instruction in an efficient, effective way,

b. enhance the textbook theory and instructor lectures,

c. provide a visual as well as an audio method of instruction,

d. are useful in make-up work,

e. encourage individual learning,

f. provide a variety in learning methods.

Some of the advantages of the simulated cases are a result of the "different" approach to learning. They provided decision-making opportunities in a controlled learning situation. They provoked discussion and an exchange of ideas. In the classroom situation the simulated cases provided a common base for an interchange of ideas. The comments of two students seemed to sum up the feelings of the groups after the simulated cases ended: (1) "ties together the pieces in a realistic way," and (2) "are an intriguing, stimulating way to apply theory." The instructors made comments about the amount of interplay and interest in the class discussions and about the effectiveness of the simulated case technique in applying theory. At the end of the simulated cases, one student made an interesting observation: "Now I see the reason for the forms!"

Revised Project Materials*

Following the field testing, the slide-tape presentations, the audio tapes, and the notebook materials were revised, although in many cases the revisions were minor ones. The materials include:

9 slide-tape presentations
6 simulated cases with audio tapes
1 simulated case in paper-and-pencil format
1 reading/listening exercise with audio tape
Student Notebook, Volume I Coordination Techniques (120 pages)
Instructor's Manual, Volume I Coordination Techniques (78 pages)
Student Notebook, Volume II Instructional Planning (104 pages)
Instructor's Manual, Volume II Instructional Planning (54 pages)

The Student Notebooks include the written exercises, the quizzes, samples of the coordination forms, and the working papers for the simulated cases and exercises. There is a limited amount of reading materials, also.

The Instructor's Manuals include the scripts for each slide-tape presentation and each audio tape that accompanies the simulated cases. They also include teaching suggestions and answer keys.

The Cooperative Program For The Disadvantaged

Several programs relating to the cooperative program for the disadvantaged were developed. The input for these programs involved extensive interviewing of teacher-coordinators, vocational directors, and school administrators using the tape-recorded interview procedure. In addition,

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*A detailed description appears at the end of this report.

input was gained through participation at two state-funded conferences about the cooperative programs for the disadvantaged and through a small sample questionnaire survey.

The questionnaire survey had restricted usefulness in building the teacher-education programs for this project; however, several comments from the open-ended questions illustrate effectively the problems of the teacher-coordinator for the cooperative programs for the disadvantaged. (1) "My biggest problem was the fact that these students needed more individual attention. I had to revise my own thinking and expectations"—comment by a first-year teacher-coordinator. (2) "Realizing that the students he is working with are not retards and freaks, but people, many of whom, when placed in a work situation can do a fine job; must not forget that there are winners and losers in every contest and that every job placement will not necessarily pan out"—comment about the problems from another beginner.

An expertise in coordination techniques, a thorough understanding of the purposes and processes of the cooperative method of instruction, plus attitudes like those expressed above—these necessities provided the basis for the teacher-education materials for the program for the disadvantaged.

Traditionally, the cooperative vocational programs have tended to "select in" those students who had a definite career interest in a specific occupational area and who had the necessary prerequisite job skills and attitudes. The student who is "disadvantaged," however, is usually the one who is most likely to be selected "out" of the cooperative vocational program—and the regular vocational education courses.

The student who is disadvantaged, of course, has a greater potential for improvement—he has more needs! Although he has more needs, he also needs a somewhat different treatment. The cooperative method of instruction, through its combination of work and related instruction and its emphasis on individualized learning, should be able to use work effectively as an educational tool. The teacher-coordinator must interweave school and work by assisting the student in three ways:

1. acquiring a job,
2. staying on the job, and
3. acquiring job skills and training for a specific occupational objective.

One of the most important objectives of the related instruction for the cooperative program for the disadvantaged is to assist the student in making attitudinal adjustments to the world of work and to school so that he makes realistic, relevant decisions about his future occupational interests and needs.

While there are many differences in operating and coordinating a cooperative vocational program and a cooperative program for the disadvantaged, there are also many similarities.

Therefore, most of the project materials provide insights for both types of programs. Three special programs were developed here, however, that related specifically to the program for the disadvantaged (however, interestingly enough, in our field testing all of the potential teacher-coordinators were involved in these special materials and appeared to derive many benefits from them).

"The Program for the Disadvantaged" is a slide-tape presentation that describes the program structure, the program objectives, the type of student selected, the level of content, placement guidelines, and enrollment criteria. This program was field tested in the courses as described above and in the field test section of this report. Furthermore, the content was used in a speech by the project director at a state conference for teacher-coordinators for the disadvantaged; the simulated case descriptions of twelve students was also used during small-group discussions at the same conference.

"Simulated Case A. Twelve Students" was used by learners to make decisions about the enrollment of the individuals in the program for the disadvantaged. These decisions included determining whether or not the student was indeed eligible for the program, the priority for being enrolled, and the type of instruction needed if he (or she) were enrolled.

This particular simulated case is quite comprehensive and rather complex. The descriptions of the twelve students were "made up." They were validated for authenticity by interviewing a teacher-coordinator in an ongoing cooperative program for the disadvantaged before the field testing was begun.

These student descriptions were used in two small-group discussions at the February 1972 Conference on Cooperative Education for the Disadvantaged in Michigan. They served as a "common ground" to start a discussion of coordination techniques—and especially the selection of students. From the discussions it was obvious that each participant did not "see" the same student although all read the same description. Because many of the participants were first-year teacher-coordinators (often with a limited knowledge of the cooperative method of instruction), the variety of topics discussed in connection with each student was wide. It was obvious that this simulated case technique was an excellent one for provoking communication and interaction. The disadvantages might be the amount of time consumed and the need for the discussion leader to be adept in directing the communication—and ending the discussion at an appropriate point. The advantages, however, seem to greatly outweigh the disadvantages.

"Simulated Case for Wayne" is a two-pronged case: (a) making decisions about Wayne's enrollment after studying his file and listening to a taped interview, and (b) making decisions when Wayne has a problem on the job.

The materials in this project only touch on the surface of the work that needs to be done in preparing teacher-coordinators for the cooperative programs for the disadvantaged, of course.

The Simulated Case Technique

The simulated case technique employed in this project provides decision-making exercises for the potential and/or the experienced teacher-coordinator. This "making decisions" technique lies somewhere between "theory" and "real life."

The person studying to be a teacher-coordinator seldom has a chance to make decisions until he is out on the job as a teacher-coordinator. At that time each decision dictates a course of action from which there is no retreat–a situation that is often embarrassing, frustrating, and sometimes costly. Furthermore, the experienced teacher-coordinator who makes decisions as a matter of routine soon loses flexibility and creativeness in selecting alternatives for different individuals.

Both the experienced and the inexperienced teacher-coordinator profit by practicing the making of decisions in a setting where there is an opportunity to discuss alternatives for action, all without incurring the risk of penalty or frustration as in a real-life situation.

The simulated cases take place in two different settings: (1) at the time the students are recruited and selected for the cooperative program, and (2) when the student is having a problem on the job.

An example of the first type of simulated case, the selection process, might be Mary Lou. The potential teacher-coordinator receives Mary Lou's file (application, cumulative school record) to study and then he listens to a taped interview between a coordinator and Mary Lou. At the end of the interview, he completes a form analyzing the interviewing techniques and analyzes Mary Lou's potential. He then makes a decision about whether to accept Mary Lou immediately, accept her conditionally, or reject her. Then he receives three teacher recommendations for Mary Lou and has a chance to change his decision if he wishes.

An example of the second type of simulated case, the job problem situation, might also involve Mary Lou. She is having a problem on the job and the supervisor calls the coordinator. The potential teacher-coordinator studies Mary Lou's file folder (previous forms, training agreement, training plan, weekly reports, etc.) and then listens to a taped interview between the coordinator and the job supervisor. He assumes the role of the coordinator in making decisions and in completing the written exercises at the end of the taped interview. Instructional decisions must also be made.

In both types of simulated cases the amount of discussion with groups has been high. The quality of the discussion and the communication have been good in the field testing; the student's perceptions about the "role" of the coordinator have become much more realistic, apparently. A representative comment from the students was "I really began to understand what it is that the coordinator does–and I think I would like to be involved."

The Future

These materials do not represent an entire teacher-education program for the development of teacher-coordinators, but they should prove to be efficient and effective for instruction in the areas they cover. As teacher-educators become familiar with the content and try the materials, they should be able to improve them and to add other materials to them.

The simulated cases may serve as a model for the development of other specialized cases for use in the specific occupational clusters.

These materials may also be extremely effective in providing in-service training at conferences, in school districts, and/or in graduate courses as well as in the preservice stages.

Last but not least, the need for related instruction procedures and materials is great. These teacher-education materials have only touched on the surface (1) by discussing the philosophy of individualized related instruction in Program II-A and (2) by discussing the design of related instruction projects in Program II-B. Some occupational areas, of course, have already developed more related instruction materials than others, but there always remains the problem of new teacher-coordinators discovering these materials—and of all teacher-coordinators developing new, relevant, related, and realistic related instruction projects to meet the needs of the individual student-learners.

Additional questions about the project itself or the materials should be directed to:

Dr. Elaine F. Uthe
624 Aderhold Hall
University of Georgia
Athens, GA 30601

DESCRIPTION OF THE PROJECT MATERIALS

Volume I. Coordination Techniques

I-A* What is a Cooperative Program? Defines cooperative method of instruction and discusses it in relation to five P's – people, process, procedures, profits, and purpose. Identifies concepts of career ladder, downtown laboratory, correlation of job experiences with related instruction, etc. Contains 69 slides, 21-minute tape, test.

I-B@ The Program for the Disadvantaged. Presents the puzzle that is the cooperative program for the disadvantaged – identification of the disadvantaged, program objectives, criteria for enrollment, guidelines for job placement, structural patterns, and related instruction vehicle. Contains 70 slides, 24-minute tape, *reading materials.*

I-C+ SIMULATED CASE A. 12 STUDENTS. Decision-making trials in identifying students as disadvantaged, determining priority for enrollment based on criteria, making job placements, and suggesting instruction. *Prerequisite: Program I-B; 22 pages from Student Notebook I.* (No slides or tape)

I-D† Forms for Recruitment and Selection. First in a three-part series discussing the functions of the coordinator by tracing the forms used in coordinating. Presents commonly used recruitment and selection forms and their purposes. Contains 47 slides, 14-minute tape, *test, and sample forms.*

I-E† Forms for Job Placement. Second in three-part series discussing the functions of the coordinator through a discussion of the forms used. Focuses on job placement, including development of Training Plan. Contains 70 slides, 20-minute tape, *test, and sample forms.*

I-F† Forms for Observation, Evaluation – and Review. Third in the three-part series relating to the duties and functions of the coordinator. Focuses on coordinator as he makes coordination calls, evaluation calls, and plans instruction. A detailed discussion on related instruction is presented in Volume II, however. Reviews the footsteps of the coordinator from recruitment to instruction. Contains 54 slides, 17-minute tape, *test, and sample forms.*

I-G+ Interviewing Techniques. Briefly presents some guidelines for interviewing and gives good and poor examples on the audio tape. Introduces simple interviewing techniques which can be employed effectively by the coordinator. Contains *10 pages of reading material* and a 20-minute tape. Useful in other programs for evaluating techniques used by coordinator on tape recordings.

I-H+ SIMULATED CASE B. MARY LOU AT RECRUITMENT TIME. Decision-making case involving one student and her acceptance for the cooperative program. Case involves Mary Lou's complete application form and cumulative school record. Coordinator (listener) reviews them while listening to a taped interview between a coordinator and Mary Lou. Coordinator makes decision about accepting or rejecting Mary Lou; then receives teacher recommendations—and has an opportunity to change earlier decision. Contains *12 pages of reading materials, decision-making exercises,* and 8-minute tape.

I-I+ SIMULATED CASE C. BETTY AT RECRUITMENT TIME. Same procedure as in Case B. Contains *12 pages of reading materials, decision-making exercises,* and a 9-minute tape.

I-J+ SIMULATED CASE D. WAYNE AT RECRUITMENT TIME. Same procedure as in Case B and C but for a disadvantaged student. Contains *15 pages of reading materials, decision-making exercises,* and a 9-minute tape.

Volume II. Instructional Planning

II-A† Individualized Related Instruction. Presents philosophy of individualized instruction as used in related instruction portion of cooperative programs. Discusses four assumptions about differences between students—and provides examples. Contains 67 slides, 18-minute tape, *and written materials which include Job Analysis form and Training Plan.*

II-B+ Related Instruction Projects—Use Job as Textbook. Expands on related instruction topic and discusses four levels of content. Presents format for related instruction projects, guidelines for developing them, and ways to use them in cooperative programs. Contains 54 slides, 12-minute tape, *sample related instruction project, and written exercises.*

II-C+ SIMULATED CASE E. MARY LOU IN JOB SITUATION. Decision-making case involving Mary Lou after she has been on the job for several weeks. Coordinator is called in to handle a job-related problem. Case includes forms filled in during recruitment, selection, and placement time—and also includes weekly reports. Coordinator reviews file and listens to taped interview of coordinator with job supervisor. Contains 8-minute tape, *19 pages of reading materials, decision-making exercises, and instructional planning exercises.*

II-D+ SIMULATED CASE F. BETTY IN JOB SITUATION. Same procedures as in Case E.

II-E+ SIMULATED CASE G. WAYNE IN JOB SITUATION. Same procedures as in Cases E and F but for a disadvantaged student.

II-F* Principles of Operations Analysis and Motion Economy. Begins to prepare the coordinator to observe skills and work habits while making coordination calls. Briefly presents principles of operations analysis and motion economy needed to revise task procedures and needed to plan instruction. Contains 47 slides, 10-minute tape, and reading materials.

II-G@ Application of Motion Economy Principles. Follows Program II-F but discusses the development of motion analysis charts. Observer watches a worker performing a task and follows guidelines while making out chart from the slides. Designed to emphasize the need to observe while making coordination calls. Contains 57 slides, a 9-minute tape, *reading materials, and written exercises.*

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* Student Notebook optional, depending on instructor's objective.

@ Student Notebook optional but recommended.

† Student Notebook optional but highly recommended as italicized items are suggested (or required) for written exercises (if used by instructor) or for the coordinator's use later when on the job (such as the sample forms).

+ Student Notebook essential as the italicized items are an integral part of the viewing or listening participation.

NORTH DAKOTA OCCUPATIONAL MODELS

Career Cluster Concept in Office Simulation

By: Olive Church

Everybody does it! Everybody simulates. Children play doctor, fireman, nurse, and mommy in the backyard. Astronauts operate completely equipped space capsules on earth. Future nurses give shots to an orange until the real arm comes along.

In preparation for work—indeed, for life—everybody does it. Everybody play-acts in order to walk through their future roles; to gain both courage and experience for the road ahead.

Office Practice Of The Past

Since the turn of the century, high schools as well as post-secondary programs have sought to teach office education in a way that would meet the needs of the "whole" office workers. In years past, this often meant that students practiced on various types of office equipment on a rotation basis.

The finished product was a student who had learned separate compartmentalized office skills—not necessarily in continuity. The result was that employers had to train their workers after hiring them; and too often, because of inaccurate pre-employment expectations, they lacked employees who could—or would—adapt to the office worker's role.

Modes Of Instruction In The Capstone Course

Thus one of the prime concerns of office education today is to make the education of our students more realistic and meaningful. Since the office practice course more often than not represents the capstone—or final—course, business education programs have implemented various modes of instruction to lend more realism and continuity to the course. Since the passage of the 1963 Vocational Act, as well as the 1968 Amendments, we are all aware that the realization of this philosophy has had a variety of concrete applications.

Variations in realistic office education programs have included some of the following modes of instruction:

Olive Church, Assistant Professor, Department of Vocational Education, The University of Wyoming, Laramie, Wyoming.

1. Integrated projects, in-basket techniques
2. Directed work experience
3. Cooperative work experience
4. Simulated office education
   a. intensive office laboratories
   b. full-scale model offices
   c. mobile office education units
   d. simulations prepared by local and/or state personnel
   e. commercially prepared simulations

Cooperative Office Experience

The problem of providing adequate work stations for young people wishing to enroll in vocational cooperative programs is a monumental task. Particularly in small communities–and 70 percent of the high schools in the United States have less than 200 students enrolled–even those available work stations are limited in number, and often inadequate for training purposes. In some cases these stations are not representative of the best practices in office procedures. Trainees are also sometimes assigned repetitive or menial tasks, and as a result they do not see the total office function. Additionally, the less-than-average student may be difficult to place even where training stations are available.

Ideally, of course, the cooperative plan provides our office education students with exposure to, and experience in, the "real" world. As a proponent of the simulation plan, I want to emphasize that where the cooperative program is possible, it should be implemented. But it should be a truly effective program: not a half-hearted make-do effort!

When the problems facing the cooperative method are insurmountable, however, what do we do? For surely, students do need a broader exposure to the reality of office work than is permissible in single concept courses.

Exemplary Project In North Dakota

As a result of a three-year exemplary project at the University of North Dakota, funded by a grant from the North Dakota State Board for Vocational Education, simulated office experience materials appropriate to an agriculturally dominated state were developed.

A major criterion was established in the beginning. The materials should be realistic, relevant, and meaningful for students at every ability level. In addition, the instruction packets should be so designed that they would be used by teachers, no matter what type of program, facilities, or equipment was available. Every teacher should be able to implement the concept–beginners as well as "old pros," innovative and creative as well as the less resourceful.

After a year of deliberation, research, frustration, and trial-and-error, we finally agreed upon an old concept in a new dress. We decided to develop a series of position simulation packets designed in such a manner that students could work semi-independently. We called them OCCUPATIONAL MODELS.

Each of the twenty-four models produced contains two kits: One for the student-employee, one for the teacher-supervisor. Together with the teacher's manual, a total of forty-nine individual packets comprise the "Library of North Dakota Occupational Models."

Procedures. During Phase I, project personnel not only reviewed existing simulation materials, establishing the "Occupational Model Concept"; but also initiated interviews with sixty-nine employers in the state. The next step was to conduct job analyses of 171 office positions within these selected companies.

Phase II of the project was devoted to the writing and development of twenty-four models through individual and team effort. Approximately 3,250 pages of simulated materials--including forms, supplies, and precise office procedures for each of the twenty-four company positions--were then prepared.

Model materials were edited during Phase III and distributed to eighteen secondary office education classes in the state for field testing. Approximately 325 students participated, with 282 responding to an evaluation instrument upon conclusion of the experiment. Classroom techniques implemented in these programs were incorporated in the 100-page teacher's manual written during this phase, as well as orientation and teaching methodologies.

Occupational Models

North Dakota Occupational Models are self-contained instructional packets developed from actual offices. They duplicate many of the demands, pressures, and problem-solving activities confronting the office employee. Models provide a realistic educational experience for students unable to participate in a cooperative office experience program. But model instruction may also be used to broaden and enrich the cooperative plan; or provide a career exposure and guidance technique vehicle. For instance, if a student's on-the-job assignment in the community is a bookkeeping station, he may desire to work through a bookkeeping model in the classroom either concurrently with, or prior to, the actual job situation.

The career cluster concept is a built-in feature of the model plan, allowing a student to explore several office positions within one industry; or one position in a variety of fields.

If a student is working toward a career goal as a secretary, for instance, he may select stenographic-secretarial models from a variety of fields, such as banking, insurance, medicine, education, or agriculture. On the other hand, a student may be uncertain about his specific positional aptitudes and interests under the broad umbrella of office occupations, and desire to explore. Should he have

already found a particular type of business appealing, such as the insurance field, he might select an in-depth program by taking all model positions (clerical, bookkeeping, stenographic, and secretarial) within that one company or type of business.

Several high schools during the pilot test, for example, used a variety of models as a career exploration technique. Student-employees were not required to complete a model. Rather, they worked two weeks in each position. Those who wished to explore further, transferred to another company and/or job. This provided students an opportunity to determine their interests and aptitudes in relation to office work in several companies and positions.

Model office. One high school tested the concept of a full-scale model office, implementing a variety of internal office operations, forms, and procedures. Girl Friday, Inc., at Fargo South High School, functioned as a pubiic stenographic agency. Clients of the business were, in reality, the twenty-four occupational models. Internal operation of the company included several positions besides the employees who worked directly and only with client (model) projects. A large-scale simulated office can easily be developed by using additional internal office personnel. Girl Friday, Inc., at Fargo South, was designated as a branch office, with billing and other accounting procedures conducted elsewhere. For the more ambitious or larger office education programs–including those established on the post-secondary level–a home office with complete accounting activities could also be included in this type of application with the occupational model concept.

Office Experience. After the student has finished a particular model, or a series of models, he will have had a variety of office experiences–from clerk to receptionist; from general office, executive secretarial to accounting clerk, bank teller and office manager. In addition, the student should become acquainted with the general office procedures, the work flow, and the vocabulary associated with a certain type of business. It's important to note, however, that the student will not have all of these experiences in one model; for example, shorthand would not be an activity in many of the models. However, all of these activities are built into the total twenty-four models; and the more models the student completes, the more apt he would be to gain all of these office experiences.

It may be evident that occupational models can also be used in advanced classes other than office practice. Advanced bookkeeping, typewriting, and shorthand; office practice, secretarial practice, and office machines are all examples of classes that could, in part, make use of occupational model instruction.

Job Analysis Survey

The exemplary program also provided information regarding North Dakota office employment through a survey of job analysis questionnaires submitted by the 171 selected office employees. This phase of the study included information relative to: duties and responsibilities of selected employees; machines used in North Dakota offices; educational background; experience; and social interaction.

The projects provided in occupational models reflect the data gathered from North Dakota office employees. Thus the typewriter is the most-used machine in occupational models, just as it is the most-used machine in North Dakota offices. In a similar relationship of models to actual office duties in the state are the tasks provided the student-employees through working projects.

Summary

The achievement and attainment of success in pre-employment training and career exploration of each student is dependent on the innovation, knowledge, skill, and methodology of the individual teacher. Lacking adequate materials, however, even the most resourceful teacher is handicapped.

The Library of Occupational Models should provide the teacher with a wide range of materials for classroom simulation programs. The teacher's manual—included as the forty-ninth packet in the library—presents a variety of suggestions for orientation, career exploration, and implementation of the model plan. Each activity cited has been tried and found effective during the field test.

Based on the field test, the occupational model plan should provide every student whose career goal focuses on office employment the opportunity to be vocationally prepared for some level of office work. Here the student becomes an employee and learns to apply his previously learned basic skills and knowledge to the job. He may also discover if his perception and expectations of the office environment and the world of work has been realistic, evaluating himself in terms of adjustment to the role of the office employee.

Conclusions. Based on the field test of occupational models with 325 students in eighteen high schools in North Dakota, as well as the results of the job analysis survey, it was concluded that occupational models:

1. can be used by small or large vocational office education programs.
2. are appropriate for complementing and supplementing the education and training students receive in basic skill courses.
3. are appropriate for complementing and supplementing occupational guidance within the office cluster.
4. are appropriate for complementing, supplementing, or substituting for cooperative work experience.
5. are appropriate for providing the less-than-average ability student with simulated office experience prior to placement on a community work station.
6. are appropriate for office education teachers, no matter what type of facilities and equipment are available.

Recommendations. Based on the field test of occupational models and the results of the job analysis survey of office employees, it is recommended that:

1. development of a high degree of skill continues to be a major factor in basic office education courses.

2. mastery of a wide range of office and business knowledges continues to be a major factor in basic office education courses.

3. students need a capstone experience that integrates basic skill and knowledge prior to job entry.

4. students' aptitudes and interests should be evaluated prior to working in specific occupational model positions.

5. especially where used as a substitute for cooperative work experience, the occupational model plan should duplicate the principles and procedures outlined in vocational office education coordinator's manuals, including:

   a. orientation to the occupational model plan
   b. interviewing student-applicants for model positions
   c. supervising the student-employee on the job (model positions)
   d. publicizing the vocational program in school and community
   e. working with advisory committees
   f. evaluating student-employees according to office standards.

Flexibility. Full-scale model office simulation, individualized instruction, cooperative work experience complement, career exploration—all have found expression in a program that, through the field-test experiment, seems to have almost endless flexibility.

We do think that occupational models will work in the majority of schools—small, medium, or large—but we also realize that some of the other modes of instruction may be more appropriate for other areas of the country. Certainly they cannot replace good cooperative programs, nor are they meant to replace other simulations. However, they can supplement both of these modes of instruction, as well as substitute where such modes are impractical.

ATTACHMENTS

Some teachers or curriculum developers may wish to prepare their own occupational models, based on the locale or region in which office education programs are established. Included in this paper, therefore, is a suggested format for conducting observations and job descriptions.

Also included is a list of prepared models available in the "Library of North Dakota Occupational Models." For further information regarding purchase of a complete library, contact:

Mr. Jerry Lydeen
State Supervisor, Business and Office Education
Department of Vocational Education
Bismarck, ND 58501

A list of behavioral objectives is attached, as well as a self-evaluation checksheet to be completed by the student-employee while working on an occupational model position.

It should be noted that the objectives, as stated, are purely suggestive. Each teacher should prepare his own list, based on the goals and needs of his particular program.

FORMAT FOR OBSERVATION AND VISITATION OF STATIONS

An observation might include the following:

A. Company Description
   history of the company and its products or services; number of employees, departments, fringe benefits, pay schedule, etc.

B. Organization Chart
   could be an organizational chart of the entire business or just a department which would consist of the individuals and their titles.

C. Office Layout
   location of desk, filing cabinets, telephones, work tables, equipment, etc., and could possibly show the definite desk of which this work station is a part.

D. Job Description
   1. Summary of Job–work performed. Each duty performed during the day for a five-day period; some jobs performed only once every month, six months, or a year.

   2. Qualifications. Necessary in regards to the various business skills needed, employment test given and how advancement within the company is determined.

E. Job Analysis
   basically, information gathered for the job description can be used in the job analysis, such as:
   1. Daily duties
   2. Occasional duties
   3. Periodical duties
   4. Equipment used
   5. Special skills and knowledges
   6. General requirements of the firm
   7. Physical activities
   8. Working conditions
   9. Worker characteristics required
   10. General comments

F. Flow Charts and Explanations
   a flow chart shows the flow of work from one desk to another. To develop a better understanding in regards to the flow of work, it is best to organize a flow chart for each duty that must be performed.

G. Vocabulary

H. Supply Sheet

I. General Instructions on how to prepare each form–and a sample of each form

J. One original copy of each form.

NORTH DAKOTA OCCUPATIONAL MODELS

MODEL DESCRIPTIONS

Secretarial - General Office Positions

Kidder County Agent	Secretary
Steele Public School	Secretary to Superintendent
Northland Chemical Company	Secretary
United Hospital	In-service Secretary
Crabtree Insurance Agency	Stenographer
Western Potato Service	Personnel Secretary
Pioneer Mutual Life Insurance	General Stenographer
Minot Builders Supply	Secretary
Fargo Schools	Secretary
Nokato State Bank	Secretary

Clerk-Typist Positions

State Farm Insurance Company	Clerk-Typist
Hugo's Piggly Wiggly	Clerk-Typist
Roughrider County Welfare	Typist
Minot Builders Supply	Clerk-Typist
Northern School Supply	Accounting Clerk
Crabtree Insurance Agency	Insurance Rating Clerk
Northwestern Bell Telephone Company	Telephone Clerk
Roughrider County Welfare	Eligibility Clerk

Bookkeeping Positions

Crabtree Insurance Agency	Bookkeeper
Barta Building Supply	Bookkeeper
Farmers Union Oil Company	Bookkeeper
Minot Builders Supply	Bookkeeper
Nokato State Bank	Teller-Bookkeeper
Steele Farmers Elevator	Bookkeeper-Office Manager

BEHAVIORAL OBJECTIVES

Upon completion of the Simulated Office Education class, the student will be able to:

1. complete projects requiring integration of previously learned office skills and knowledges.
2. demonstrate poise and confidence during the interview and throughout the simulation.
3. demonstrate tact, patience, cooperation, and other human relations skills during interaction with other employees and with the employer.
4. demonstrate the willingness to make decisions regarding office procedures.
5. demonstrate the ability to make sound (or logical) decisions regarding office procedures.
6. list the one position he is most interested in pursuing and explain why he feels that way.
7. list the one position he is least interested in pursuing and explain why he feels that way.
8. demonstrate appropriate telephone techniques for customers, related businesses, and suppliers.
9. show the willingness to accept constructive evaluation from his employer.
10. show the willingness to initiate steps to eliminate the source of any criticism, i.e., more carefully done work, in-service training, etc.
11. evaluate himself and his work with reasonable accuracy.

EMPLOYEE'S SELF-EVALUATION

Employee Name _____ Date _____

Position _____ Company _____

Look over this Self-Evaluation sheet before beginning work in this position. Set your goals. Fill this out at the completion of your employment. Any comments which you desire kept strictly confidential will be acknowledged.

MY PERSONAL GOALS FOR THIS POSITION

QUESTIONS OR PROBLEMS ARISING ON THIS POSITION

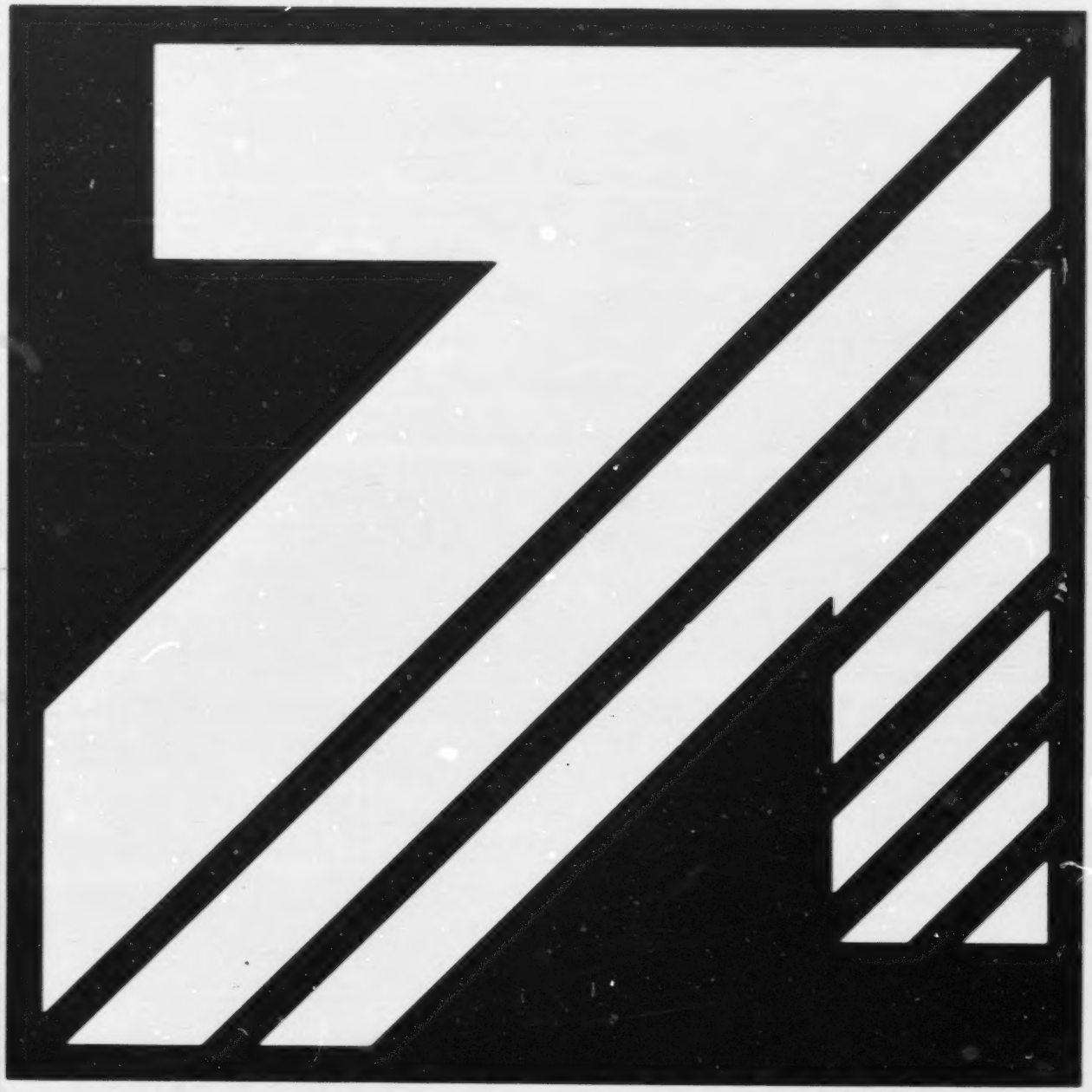
POSSIBLE SOLUTIONS

RECOMMENDATIONS

EVALUATION	Yes	No
Did I accomplish my personal goals on this position	___	___
Did I show improvement		
in skills?	___	___
in speed of performance?	___	___
in efficiency?	___	___
in knowledge?	___	___
in decision-making?	___	___
As an employee working for this company, was I		
loyal?	___	___
diligent?	___	___
responsible?	___	___

	Yes	No
As an employee sharing office space, equipment, supplies, was I		
cooperative?	___	___
courteous?	___	___

APPENDICES



7TH ANNUAL NATIONAL VOCATIONAL AND TECHNICAL TEACHER EDUCATION SEMINAR

October 22-25, 1973

Hotel Adolphus, Dallas, Texas

APPENDIX A

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OBJECTIVES

- Explicate changes in the educational scene with implications for vocational teacher educators and other vocational personnel.

- Introduce Comprehensive Career Education In-service Education products and other career education resources that apply to teacher education.

- Explain the process and products of the Performance-based Teacher Education Curricula project and other innovative developments having applications for ongoing personnel development programs.

- Become aware of mediated programs and products available for vocational teacher educators.

AWARD RECIPIENTS

FIRST FIVE SEMINARS, 1971

Willard M. Bateson
James E. Finical
Vera P. Tisdale

FIVE OF SIX SEMINARS, 1972

Harold P. Binkley
Seymour T. Brantner
Kenneth Clay
Doris E. Manning
Alfred F. Newton
C. Edwin Pearson
Obed L. Snowden

FIVE OF SEVEN SEMINARS, 1973

Francis A. Bosdell
B. Verner Burkett
A. T. Kynard
Robert M. Reese
Charles E. Reigel
George J. Russ

MONDAY, OCTOBER 22

3:00 - 5:00 p.m.	REGISTRATION	Lobby
7:00 - 8:00 p.m.	REGISTRATION	Lobby
8:00 p.m.	OPENING SESSION	Grand Ballroom

PRESIDING
Anna M. Gorman

WELCOME TO DALLAS
Roger L. Barton

RECOGNITION AWARDS
Anna M. Gorman

KEYNOTE ADDRESS
The Changing Educational Scene and Its Implication for Teacher Education
Robert E. Taylor*

SEMINAR FORMAT
Anna M. Gorman

*Presentation given by Shelby Price

TUESDAY, OCTOBER 23

THE CHANGING CONTENT: IMPACT ON PROGRAMS, STRATEGIES OF TEACHING AND PEOPLE

8:00 a.m. - 4:30 p.m.	REGISTRATION	Lobby
9:00 a.m.	FIRST SESSION	Regency Room
	PRESIDING Joseph F. Clark	
	Comprehensive Career Education In-Service Education Products With Applicants for Teacher Education Harry N. Drier, Jr. Anna M. Gorman Robert E. Norton	
10:00 a.m. - 10:20 a.m.	COFFEE BREAK	Regency Room
10:20 a.m. - 11:45 a.m.	Differential Discussion Groups	
Group A	Aaron J. Miller, presiding Harry N. Drier, Jr.	Renaissance Room
Group B	Arthur L. Berkey, presiding Anna M. Gorman	Regency Room
Group C	Mary V. Marks, presiding Robert E. Norton	Rose Room
11:45 a.m. - 1:30 p.m.	LUNCH	

TUESDAY, OCTOBER 23

1:30 p.m.	SECOND SESSION	Grand Ballroom
	PRESIDING Bill Stamps	
	CAREER EDUCATION STAFF DEVELOPMENT PROGRAMS AND RESOURCES	
	Ohio, Career Education In-Service Package Linda Keilholtz	
	Dallas, Career Education In-Service Plan Dwane Kingery	
	University of Wisconsin, Career Education In-Service Program Robert Ristau	
3:00 - 3:20 p.m.	COFFEE BREAK	Regency Room
3:20 - 5:00 p.m.	Differential Discussion Groups	
Group A	Lawrence F. H. Zane, presiding Linda Keilholtz	Regency Room
Group B	Agnes F. Ridley, presiding Dwane Kingery	Grand Ballroom
Group C	Modestine Smith, presiding Robert Ristau	Rose Room
5:00 p.m.	SOCIAL	Rose Room

TUESDAY, OCTOBER 23

8:00 p.m. EVENING SESSION Civic II

PRESIDING
C. J. Cotrell

ERIC USER PACKAGES
Wayne Schroeder

WEDNESDAY, OCTOBER 24

THE CHANGING STRATEGIES: IMPACT ON PROGRAMS, TEACHING AND PEOPLE IN TEACHER EDUCATION

8:00 a.m. - 4:30 p.m.	REGISTRATION	Lobby
9:00 a.m.	THIRD SESSION	Grand Ballroom

PRESIDING
Edwin Pearson

Performance Based Teacher Education Curricula, Implications for Programs
Curtis Finch
James Hamilton

10:00 a.m.	COFFEE BREAK	Regency Room
10:20 a.m.	PANEL	Grand Ballroom

Utilization of Performance-Based Modules in Teacher Education Programs
F. Milton Miller
Mary Jane Grieve
Richard A. Adamsky

11:45 a.m. - 1:30 p.m.	LUNCH

WEDNESDAY, OCTOBER 24

1:30 p.m. — FOURTH SESSION — Grand Ballroom

PRESIDING
James E. Finical

INTRODUCTION TO INNOVATIVE MODULES, PACKAGES IN VOCATIONAL TEACHER EDUCATION

Glen Oaks–An Environmental Simulation for Teacher Education
Jimmy G. Koeninger

An Interaction Simulation: Coordinated Local-State Vocational Education Planning
Lucille W. Patton

The Cooperative Vocational Program
MULTI-MEDIA AND SIMULATED CASES
Elaine F. Uthe

2:45 p.m. — COFFEE BREAK

3:05 - 5:00 p.m. — Differential Discussion Groups

Group A	Adaline D. Jones, presiding Jimmy G. Koeninger	Regency Room
Group B	Kenneth Ertel, presiding Lucille Patton	Grand Ballroom
Group C	Floyd L. McKinney, presiding Elaine F. Uthe	Rose Room

WEDNESDAY, OCTOBER 24

8:00 p.m. EVENING SESSION Civic II

PRESIDING
Marie P. Meyer

Occupational Models: A Career Cluster Concept
Olive Church

THURSDAY, OCTOBER 25

9:00 a.m. — FIFTH SESSION — Grand Ballroom

PRESIDING
Aleene Cross

KEYNOTE ADDRESS
The Changing Expertise: Impact on Teacher Educators
Felix C. Robb

9:45 a.m. — A Look Ahead
Anna M. Gorman

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